CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5

Purpose:
Compliance Evaluation Sampling Inspection

Facility:
Ex. 6 (Personal Privacy) Farm
Ex. 6 (Personal Privacy)
Ex. 6 (Personal Privacy)
Walworth County
Ex. 6 (Personal Privacy)

NPDES Permit Number: N/A

Date of Inspection:
November 17, 2015

EPA Representatives:
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Facility Representatives:
Ex. 6 (Personal Privacy)
Ex. 6 (Personal Privacy)

Report Prepared by:
Joan Rogers, Environmental Scientist

Report Date:
January 6, 2016

Inspector Signature and Date: Joan Rogers 5/17/17

Approver Signature:

Approval Date: 5/17/17

1. BACKGROUND

The purpose of this report is to describe, evaluate and document th[redacted] Farm's compliance with the Clean Water Act (CWA) at its Lake Geneva, WI facility on November 17, 2015. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended.

The [redacted] Farm is a medium dairy operation. The facility confines mature dairy cattle, a few steers and some replacement heifers. The facility had recently been inspected by Wisconsin Department of Natural Resources (WDNR) who requested EPA's assistance in a follow up inspection.

The primary production area is on the east side of Highway 120. Grain bins and a few smaller barns for heifers are on the west side. Surface water flows to the south. At the southern edge of the primary production area on the east side of Highway 120, a drainage ditch had been installed to convey flow from the east to the west and through a culvert under Highway 120. On the west side of Highway 120, a grassed waterway was designed and constructed with assistance from the Walworth County NRCS staff. The grassed waterway was installed in 2004. On the western edge of the grassed waterway is the perennial West Branch of the North Branch of Nippersink Creek. The flow is to the north and to the perennial North Branch of the Nippersink Creek. From there, flow goes to the east and south to the Fox River. The Fox River is a Traditional Navigable Water. The Nippersink Creek in Illinois is listed on the 303d list as impaired based on fecal coliforms.

The [redacted] Farm was inspected by the WDNR on May 10, 2015 as a result of a complaint. WDNR scheduled another meeting and on-site visit for May 15, 2015. Participants included WDNR, Walworth County and Department of Agriculture, and Trade and Consumer Protection (DATCP) staff. Runoff from the production area was documented by WDNR during the May 15, 2015 site visit. The facility does not have a WPDES permit.

2. SITE INSPECTION

Table 1: Site Entry

Arrival Time:	10:40 A.M.
Temperature:	50°F
Precipitation:	Rain
Presented credentials?	Yes
Credentials presented to whom and at what time?	[redacted]
EPA vehicle parked in approved location?	Yes
Location where EPA vehicle was parked?	North of Hay Storage
Disposable boots worn?	Yes
Other bio-security measures taken:	None

2.1 Records Review (The following Records Review tables reflect information provided before the walk-through of the facility, unless otherwise noted.)

Table 2: Documents

Checklist(s) Used	
Boilerplate CAFO Inspection Report as Checklist	
Facility Documents Reviewed:	
None	
If photographs or documents were taken, does the facility consider any to be Confidential Business Information (CBI)?	No

Table 3: Facility Description

Type of Animal	**Number of Animals**	**Capacity**	**Type of Confinement**
Mature Dairy Cattle	525	525	Freestall Barns
Beef Cattle	8	8	Barn
Heifers	Unknown	Unknown	Barn
Minimum Number of Animals in previous 5 years:			Within 100 animals as stated above.
Maximum Number of Animals in previous 5 years:			As stated above.
Number of Animals that are stabled/confined and/or fed/maintained for 45 days or more in previous 12 months:			As stated above.
Amount of Liquid Manure Generated per year:			Unknown
Amount of Solid Manure Generated per year:			Unknown
Does the facility have an NPDES Permit?			No
SIC or NAICS code:			0241
CAFO Designation Date (If a designated CAFO)			Not designated on date of the inspection.
CAFO Designation Reason (If a designated CAFO)			N/A
Do animals have direct access to WOUS?			No
Are crops, vegetation, forage growth, or post harvest residues sustained in the normal growing season over any portion of the lot or facility where animals are kept?			No
What is the area (acres) of the production area?			Unknown
What is the area (acres) of the pasture?			None
How many employees (not counting family members)?			EPA did not ask.
Other facilities under common ownership (name and address):			
None with animals.			

Table 4: Livestock Waste Storage

Type of Storage	Storage Capacity	Type of Liner	Depth Markers Present	Last Time Waste was Removed	Amount of Waste Removed	Days of Storage
Storage Pond	2 million gallons	Cement	No	November 16, 2015	Unknown	6 months
Records at site of storage structure design?				Built in 2004 with the help of NRCS. Design drawings may be in the NRCS office.		
Is manure stored for the short term? If yes, describe where it is stored, how it is drained and where it drains to.				No		
Are records kept of the level of manure in the storage structures?				No		
When was the last time a storage structure was emptied, either partially or completely?				November 16, 2015		
What amount of manure or process wastewater was removed the last time the storage structure was emptied, either partially or completely?				Unknown		
Do the facility personnel inspect and keep records of all diversion devices?				Unknown		
Do the facility personnel inspect and keep records of all impoundments?				Observed during daily operations. No records kept.		
Do the facility personnel inspect and keep records of all the water lines?				Observed during daily operations. No records kept.		
Do the facility personnel perform routine visual inspections and keep records of the production area?				Observed during daily operations. No records kept.		
Does the waste storage system have a managed outfall or discharge point?				No		
Has the facility had any documented discharges of livestock waste to surface water in the past year?				No		
Are there safety devices installed around any manure storage ponds?				Fence		

Table 5: Livestock Waste Management

Describe the way manure is collected and disposed of at the facility:	
Manure from the freestall barns is manually pushed to the manure storage pond. Manure from the heifer barns is hauled once per week and dumped into the manure storage pond. Manure from the beef cattle barn is hauled once per week and dumped into the manure storage pond.	
Describe the way used bedding is collected and disposed of at the facility:	
Used bedding from calf hutches is changed as needed. In the barns, straw and sand is used as bedding and is managed with the manure, eventually ends up in the manure storage pond.	
Are mortality records kept?	Yes
Describe the way mortalities are managed at the facility:	
Mortalities are rendered by Bailey Farms Rendering.	
What type of method is used to provide drinking water for the animals?	Drinkers with float system is used to provide well water to the animals.
Describe the way spilled drinking water is collected and disposed of at the facility:	
Spilled drinking water is handled with the manure and eventually ends up in the manure storage pond.	
Describe the way mist cooling water is collected and disposed of at the facility:	
No misting is used.	
Describe how chemicals are stored and how used or spilled chemicals are collected and disposed of at the facility:	
Small amounts used at a time are handled with the manure and eventually end up in the manure storage pond.	
Describe the way water that has been used to wash/flush barns is collected and disposed of at the facility:	
Barns are not flushed.	
Describe where water comes from that is used to clean and/or flush.	
N/A	
Describe the way feed is contained and how runoff from feed is collected and disposed of at the facility:	
Haylage is stored under tarp on concrete pad. Silage is stored under tarp on concrete pad.	
If a dairy, describe how process wastewater from the plate cooler water is collected and disposed of at the facility:	
Plate cooler water is collected in a stock tank and reused for drinking water for the animals.	

If a dairy, describe how process wastewater from the cleaning of the milking parlor is collected and disposed of at the facility:	
Milking parlor cleaning water goes to the manure storage pond.	
If a dairy, describe how process wastewater from the cleaning of the milk tanks is disposed of at the facility:	
Milk tank cleaning water goes to the manure storage pond.	
If a dairy, how many times per day are cows milked?	Two

Table 6: Land Application and Disposal of Manure and Process Wastewater

Does the facility perform and keep records of the manure testing?	No
When was the last time a sample was taken of the manure and/or process wastewater?	Not done.
Describe the process to take the manure and/or process wastewater sample.	N/A
Number of acres available for land application:	Approximately 2000 acres.
Are land application records kept?	Yes
Who applies the manure and process wastewater to the fields?	Contractor.
Are weather conditions at time of application kept? (24 before – 24 after)	Not formally. Knowledge of the weather is known.
Does the facility perform and keep records of the soil testing?	Yes
Is manure transferred off-site to another party?	No
Are manure transfer records maintained?	N/A
Do facility personnel perform periodic inspection of land application equipment?	N/A

Table 7: Receiving Surface Waters

Describe the surface flow pathways:	
Surface water flows to the south. At the southern edge of the primary production area on the east side of Highway 120, a drainage ditch had been installed to convey flow from the east to the west and through a culvert under Highway 120. On the west side of Highway 120, a grassed waterway conveys flow to the West Branch of the North Branch of Nippersink Creek. The flow in this perennial stream is to the north and to the perennial North Branch of the Nippersink Creek. From there, flow goes to the east and south to the Fox River. The Fox River is a Traditional Navigable Water. The Nippersink Creek in Illinois is listed on the 303d list as impaired based on fecal coliforms.	
How many months out of the year is there flow in the nearest surface water pathway:	"Most of the time" according to the owners of the facility.

Are there any storm water pathways entering the facility?	No
Are there any clean water ponds on site?	No
What is the name of the first waterway that is identified as a Traditional Navigable Water (TNW) for surface flow from the facility?	Fox River
Is the surface water pathway nearest to the facility considered to be ephemeral, intermittent or perennial?	Perennial
Has the surface water pathway nearest to the facility been assessed for water quality?	No

Table 8: Nutrient Management Plan

NMP on site?	No
Date NMP Submitted:	Unknown
Planner Name/Company:	NMP was drafted by Kunke, a technical service provider in the Delavan area. The NMP is not maintained on site. EPA did not ask any additional questions about the NMP.

Table 9: Land Application Records (details of the records reviewed)

Fields available for application this year:	2000 acres. The facility owners contract out for their land application. No land application records were reviewed.
Annual manure analysis for N and P	No manure analysis is performed.
Soil tests for fields (for P) less than 5 years old?	EPA did not observe.
Crop:	Corn, Beans, Rye, Alfalfa

Table 10: Facility Records (details of the records reviewed)
No facility records were reviewed.

Table 11: NPDES Permit
The facility does not have an NPDES or WPDES permit

2.2 Walkthrough of the Facility

Refer to ATTACHMENT A Ex. 6 (Personal Privacy) Farm Photo Log and Walkthrough" for a description of the walkthrough of the facility and the photos taken during the walkthrough.

2.3 Closing Conference and Post-Inspection

Table 12: Post Walk-Through

Were specific "Potential Violations" discussed with facility personnel?	Yes
Were specific "Areas of Concern" discussed with facility personnel?	Yes
Who were the Potential Violations or Areas of Concern discussed with?	
Ex. 6 (Personal Privacy)	
Compliance assistance materials given to facility personnel:	
EPA mailed compliance assistance materials the week following the inspection.	
Exit Time:	Approximately 2:30 P.M.
Disposable Boots Left at Facility?	Yes
Vehicle Washed after leaving facility?	Yes
Date and Time that vehicle was washed:	November 17, 2015 at approximately 4:00 P.M.

Table 13: Waterway Documentation

List the pathway taken by EPA inspectors to document the waterway at the facility.
EPA walked west through the grassed waterway to the confluence of the grassed waterway with the West Branch of the North Branch of Nippersink Creek. There was flow under the vegetation in the grassed waterway for approximately 200 feet, approximately 1/6 of the length of the grassed waterway. As the ground leveled out, the flow diminished and EPA did not observe flow under the vegetation until near the confluence with the perennial stream. At the confluence, EPA observed a distinct flow channel from the grassed waterway. EPA also observed that there was bed and bank structures and debris from high flow in the West Branch of the North Branch of Nippersink Creek.

Table 14a: Sampling Information

Were samples taken?	Yes
Were samples split with facility?	Yes
Number of samples taken?	2
Was a trip blank created?	Yes
Identify which sample is the trip blank.	B01
Were field duplicate samples taken (1 duplicate per 20 samples)?	No
Identify which sample(s) is/are the field duplicate(s)	N/A
Were equipment blanks taken (if more than one type of equipment was used to collect samples)?	No
Identify which samples were equipment blanks.	N/A

List chain of custody for fecal coliform samples:	Although fecal coliform samples were taken, EPA was not going to be able to get them to the lab before the lab closed, so these samples were discarded.
List chain of custody for nutrient and general chemistry samples:	EPA hand delivered these samples to the Region 5 Central Regional Laboratory at 8:21 A.M. on November 18, 2015.
Location where samples were preserved:	In the facility driveway.
Name of people involved with sample preservation:	Ben Atkinson, Joan Rogers
Time of sample preservation:	2:00 P.M.
Were samples shipped to a lab?	No
Name/Address of shipping location:	N/A
Date and time that samples were dropped off for shipping:	N/A
Did all inspectors involved with the sampling sign the chain of custody?	Yes
Weather conditions at the time of sample collection:	Rain and 50°F
Camera name and type used to photograph sample collection:	Ricoh GPS-4

Table 14b: Facility Sample Information

Number	Name	Location	Date	Time	Collector	Color/ Smell	Photo #(s)	Photo-grapher
S01	Before Ditch	From the flow channel in the yard east of Highway 120 before the confluence with the drainage ditch	11/17/15	1:40 P.M.	Ben Atkinson	Brown/ No odor noted	RIMG0669 RIMG0670 RIMG0671	Joan Rogers
S02	West Ditch	From the grassed waterway on the west side of Highway 120	11/17/15	1:54 P.M.	Ben Atkinson	Brown/ No odor noted	RIMG0672 RIMG0673	Joan Rogers
B01	Ex. 6 (Personal Privacy)	At the facility where EPA vehicle was parked	11/17/15	2:22 P.M.	Joan Rogers	Clear/ None	None	N/A

Table 15: Sample Results

Sample ID	Sample Description (all liquid samples unless otherwise noted)	Biochemical Oxygen Demand (mg/L)**	Total Kjeldahl Nitrogen (mg/L)	Nitrate-Nitrite N (mg/L)	Ammonia as N (mg/L)	Total Phosphorus (mg/L)	D
	Typical limits			*0.1 **	*15*	*.05*	
S01	Before Ditch	870	174	1.29	26.5	39.6	
S02	West Ditch	690	93.0	2.77	22.2	19.1	
B01	Ex. 6 (Personal Privacy)	U	0.20	U	U	U	

U = Not Detected

The typical limits are for general use waters and this data comes from the Illinois Water Quality Standa unless otherwise noted. There are no Water Quality Standards for Biochemical Oxygen Demand, Total Nitrate-Nitrite, and Total Suspended Solids but some limits are provided and are meant to be a benchm only.

* Maximum Nitrate-Nitrite amount for aquatic life (North Carolina State University Water Quality Group)
**Bias in sample is high due to analyst error and incubation time of 6 days instead of 5.

- Ammonia Nitrogen, Total Phosphorus, Nitrate-Nitrite, Dissolved Solids (TDS), Total Suspended Solid Nitrogen (TKN), and Biochemical Oxygen Demand (BOD) were analyzed by the Region 5 Chicago R

3. POTENTIAL VIOLATIONS

According to Section 301(a) of the Clean Water Act, it is a violation to discharge pollutants from a CAFO to waters of the United States without a permit. EPA observed potential discharges in the following location:

1. There was no containment for the manure and process wastewater from the barn and open pen of the Calf Barn. Runoff from this barn and open pen would flow along the ground to the south and eventually to the flow channel which joined the drainage ditch south of the production area. The drainage ditch flowed to the grassed waterway through a culvert under Highway 120. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

2. There was no containment for the manure and process wastewater from the barn and open pen of the Heifer Barn north of the Calf Barn. Runoff from this barn and open pen would flow along the ground to the south and eventually to the flow channel which joined the drainage ditch south of the production area. The drainage ditch flowed to the grassed waterway through a culvert under Highway 120. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

3. There was no containment for the manure and process wastewater from the barn and open pen on the west side of the 2000 Freestall Barn. Runoff from this barn and open pen would flow along the ground to the south and eventually to the flow channel which joined the drainage ditch south of the production area. The drainage ditch flowed to the grassed waterway through a culvert under Highway 120. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

4. There was no containment for the manure and process wastewater from the barn and open pen on the west side of the 2002 Freestall Barn. Runoff from this barn and open pen would flow along the ground to the south and eventually to the flow channel which joined the drainage ditch south of the production area. The drainage ditch flowed to the grassed waterway through a culvert under Highway 120. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

5. There was no containment for the manure and process wastewater from the barn and open pen on the west side of the 2004 Freestall Barn. Runoff from this barn and open pen would flow along the ground to the south and eventually to the flow channel which joined the drainage ditch south of the production area. The drainage ditch flowed to the grassed waterway through a culvert under Highway 120. During heavy rains, there is a significant

potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

6. There was no containment for the manure and process wastewater from the feed mixing area and any stored feed or haylage west of the 2000 Freestall Barn. Runoff from this area would flow along the ground to the south and eventually to either the flow channel or the flow pathway just to the west of the flow channel, which both join the drainage ditch south of the production area. The drainage ditch flowed to the grassed waterway through a culvert under Highway 120. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

7. There was no containment for the manure and process wastewater from the calf hutch area. Runoff from the calf hutches, and from the used bedding stacked near them, would flow along the ground to the south and eventually to either the flow channel or the flow pathway just to the west of the flow channel, which both join the drainage ditch south of the production area. The drainage ditch flowed to the grassed waterway through a culvert under Highway 120. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

8. There was no containment for the manure and process wastewater from the barn and open pen attached to the storage building on the west side of Highway 120. Runoff from this barn and open pen would flow to the south and eventually to the grassed waterway. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

9. There was no containment for the process wastewater from the spilled feed on the ground around the grain bins on the west side of Highway 120. Runoff from of this process wastewater would flow to the south and eventually to the grassed waterway. During heavy rains, there is a significant potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

10. For all runoff that reached the grassed waterway, there is the potential that this area is considered a wetland and pollutants could therefore be contaminating a wetland adjacent to a perennial stream.

4. AREAS OF CONCERN

EPA observed these areas of concern whereby pollutants have the potential to reach waters of the United States:

1. There was no containment for the manure and process wastewater from the heifer barns and their open pens on the west side of Highway 120. Runoff from these barn and open pen would flow to the west and during heavy rains,

there is a potential for pollutants to reach the West Branch of the North Branch of Nippersink Creek.

2. There was no containment for the process wastewater from the silage stored on the Silage Pad. Runoff of process wastewater would flow to the north to a crop field.

3. There was track in and track out from the northeast barn door of the 2010 Freestall Barn. Runoff of process wastewater would flow to the north to a crop field.

5. LIST OF ATTACHMENTS

A) Ex. 6 (Personal Privacy) Farm Photo Log and Walkthrough.
B) Construction Plans for Ex. 6 (Personal Privacy) Farm Grassed Waterway.
C) Aerial photograph of Ex. 6 (Personal Privacy) Farm with buildings, waterways and discharge pathways labeled.
D) Sample Analysis from November 17, 2015 sampling.

ATTACHMENT A
Ex. 6 (Personal Privacy) Farm Photo Log and Walkthrough
EPA Inspection November 17, 2015
All photos taken by Ben Atkinson, Environmental Engineer, U.S. EPA
Camera: Ricoh WG-4

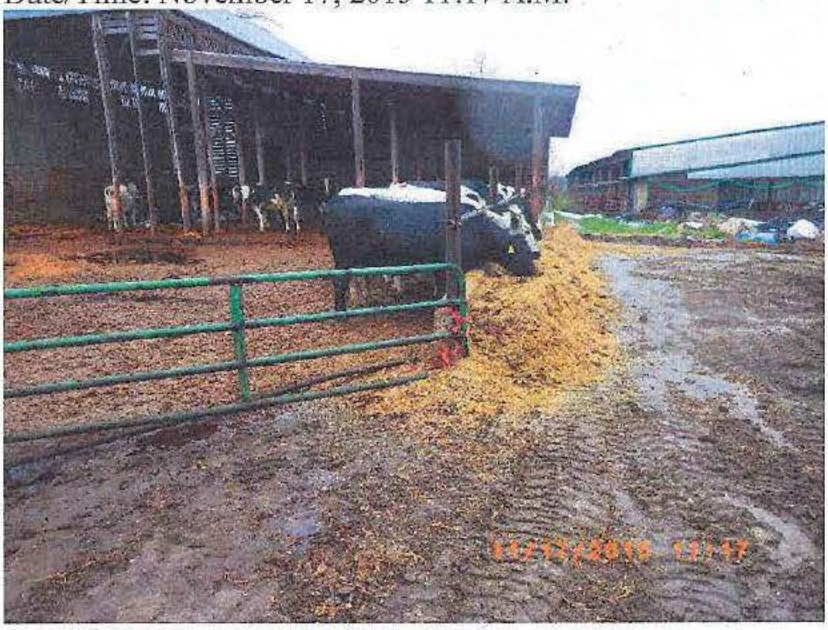
EPA performed the records review inside the door of the Milking Parlor. Following the records review, EPA performed a walkthrough of the facility beginning with the Calf Barn to the north of the Milking Parlor.

The Calf Barn and its open pen do not have any containment for manure, feed, or process wastewater. These can flow with precipitation to the south along the facility's access road. EPA observed brown leachate in the puddles of water on the access road.

In the area by the Calf Barn, EPA observed raw materials outside the openings to the Commodities Shed and stacked where precipitation can come into contact with them.

1: RIMG0553
Description: No containment for feed, manure, or process wastewater from the Calf Barn, which can flow with precipitation to the south.
Location: East of the calf barn.
Camera Direction: West
Date/Time: November 17, 2015 11:15 A.M.

2: RIMG0554
Description: Open pen for a barn north of the Calf Barn. The pen does not have containment for feed, manure and process wastewater, which can flow with precipitation to the south. EPA observed a plume of process wastewater in the puddles outside the pen.
Location: Northeast of the Calf Barn.
Camera Direction: West
Date/Time: November 17, 2015 11:17 A.M.



3: RIMG0555
Description: Even though feed is hauled away daily, the feed placed on the ground outside the pen is exposed to precipitation. There are no gutters on the barn roof.
Location: Northeast of the Calf Barn.
Camera Direction: North
Date/Time: November 17, 2015 11:17 A.M.

4: RIMG0556
Description: Small amount of commodoties (protein and hominy) is lost to precipitation from the open bays.
Location: North of the Milking Parlor.
Camera Direction: South
Date/Time: November 17, 2015 11:19 A.M.

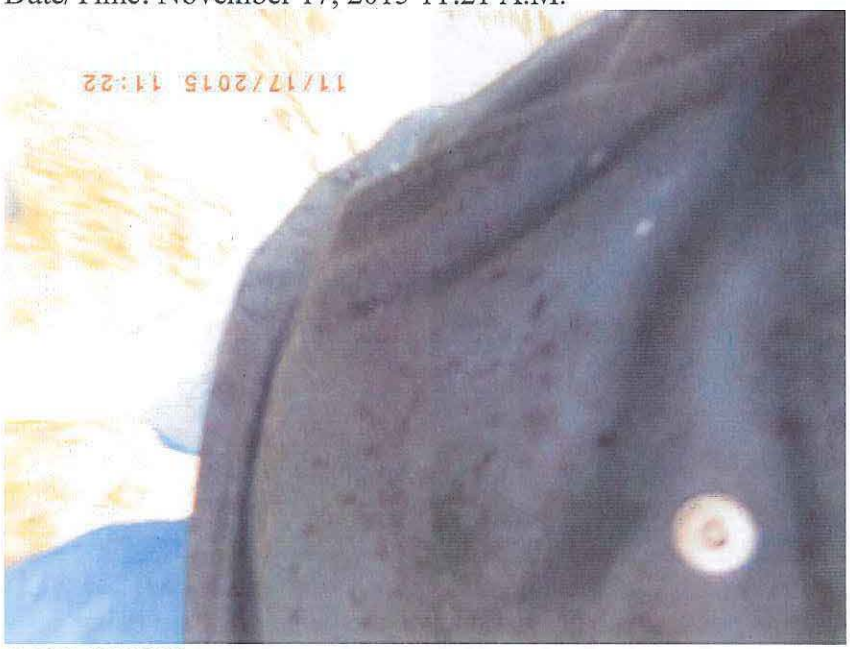
5: RIMG0557
Description: Raw materials stored out in the open on east side of Calf Barn.
Location: Northeast of Calf Barn
Camera Direction: Southwest
Date/Time: November 17, 2015 11:20 A.M.

6: RIMG0558
Description: Silage is tarped and open face is on the south side of the Silage Pad.
Location: West of the silage.
Camera Direction: East
Date/Time: November 17, 2015 11:20 A.M.

The Heifer Barn to the west of the Silage Pad also did not have containment for manure, feed or process wastewater from the animals confined in this barn. EPA observed plumes of polluted process wastewater in the standing water outside these pens, which would flow to the south with precipitation. Some manure and feed was pushed out of the north side of the open pen and EPA noted that there was process wastewater in the standing water outside the pen. This water did not appear to be able to reach a surface waterway because there was a rise in elevation in the land to the north.

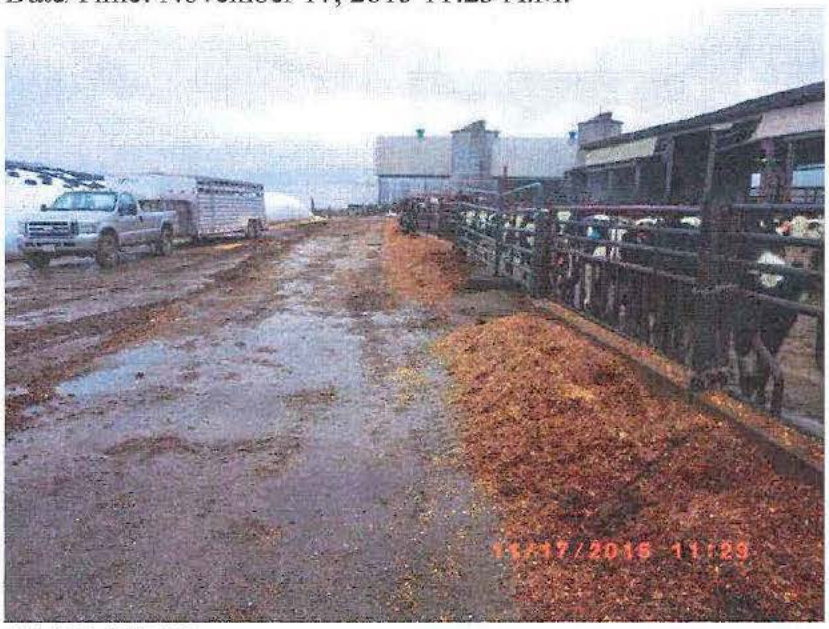
On the north side of the Silage Pad, EPA observed process wastewater from silage leachate. EPA did not observe this leachate reaching a surface waterway.

7: RIMG0559
Description: Open pens around the heifer barn do not have any containment for feed, manure, or process wastewater. EPA observed plumes of process wastewater in the puddles around the pens.
Location: South of Heifer Barn.
Camera Direction: North
Date/Time: November 17, 2015 11:21 A.M.



8: RIMG0560
Description: Accidental photo.
Location: Unknown
Camera Direction: Unknown
Date/Time: November 17, 2015 11:22 A.M.

9: RIMG0561
Description: North side of the Silage Pad has spilled silage on the ground. EPA did not observe any silage or process wastewater from the Silage Pad reaching a surface water.
Location: North of the Silage Pad.
Camera Direction: East
Date/Time: November 17, 2015 11:23 A.M.



10: RIMG0562
Description: Feed for the heifer pens is piled on the ground outside the pens. Without being covered, the feed and process wastewater from the feed could flow with precipitation to the south.
Location: North of Heifer Barn.
Camera Direction: South
Date/Time: November 17, 2015 11:23 A.M.

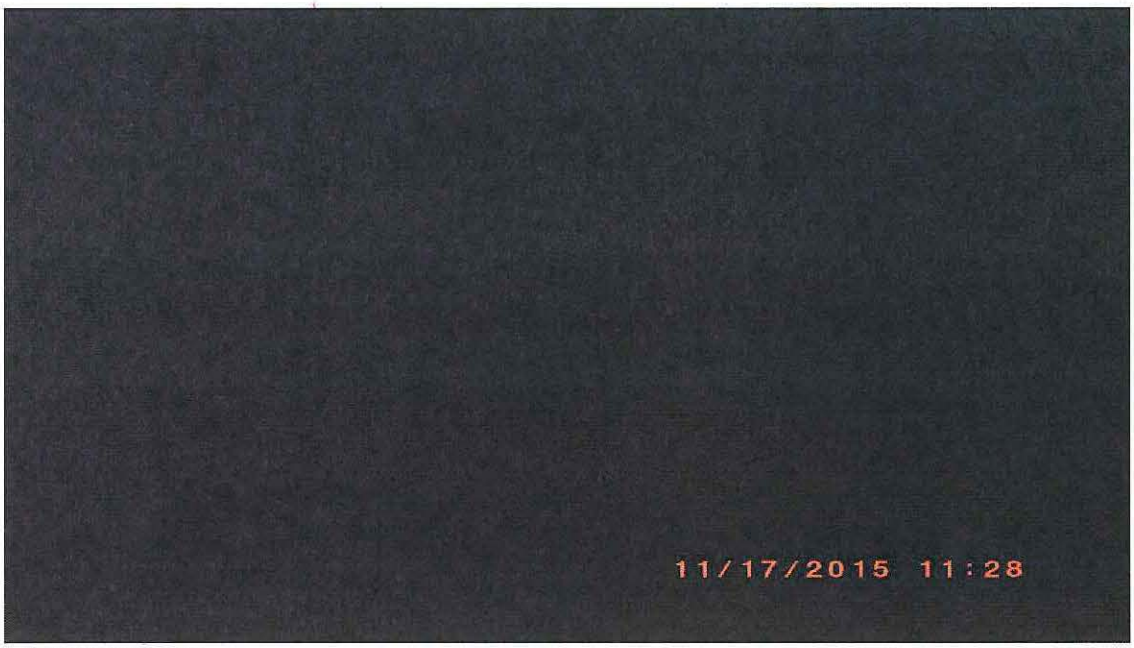
11: RIMG0563
Description: Feed, manure and process wastewater from the north side of the open pens of the Heifer Barn discharge onto the access road. EPA did not observe them going into a surface water. Steers in the pen at the end of the road prevented EPA from inspecting any closer.
Location: Northeast corner of the Heifer Barn.
Camera Direction: West
Date/Time: November 17, 2015 11:23 A.M.

12: RIMG0564
Description: Feed, manure and process wastewater from the north side of the open pens of the Heifer Barn discharge onto the access road.
Location: Northeast corner of the Heifer Barn.
Camera Direction: West
Date/Time: November 17, 2015 11:23 A.M.

13: RIMG0565
Description: Spilled feed from the Silage Pad was in the standing water off of the pad.
Location: North of the Silage Pad.
Camera Direction: Down
Date/Time: November 17, 2015 11:25 A.M.

14: RIMG0566
Description: Flow pathways of precipitation north of the Silage Pad did not flow to any surface water on the day of the inspection.
Location: North of the Silage Pad.
Camera Direction: Northeast
Date/Time: November 17, 2015 11:26 A.M.

15: RIMG0567
Description: Spilled feed on and around the Silage Pad.
Location: North of the Silage Pad.
Camera Direction: West
Date/Time: November 17, 2015 11:26 A.M.



16: RIMG0568
Description: Mistake photo.
Location: Unknown.
Camera Direction: Unknown
Date/Time: November 17, 2015 11:28 A.M.

17: RIMG0569
Description: Silage was not contained on the Silage Pad.
Location: Northeast of Silage Pad.
Camera Direction: Southwest
Date/Time: November 17, 2015 11:29 A.M.

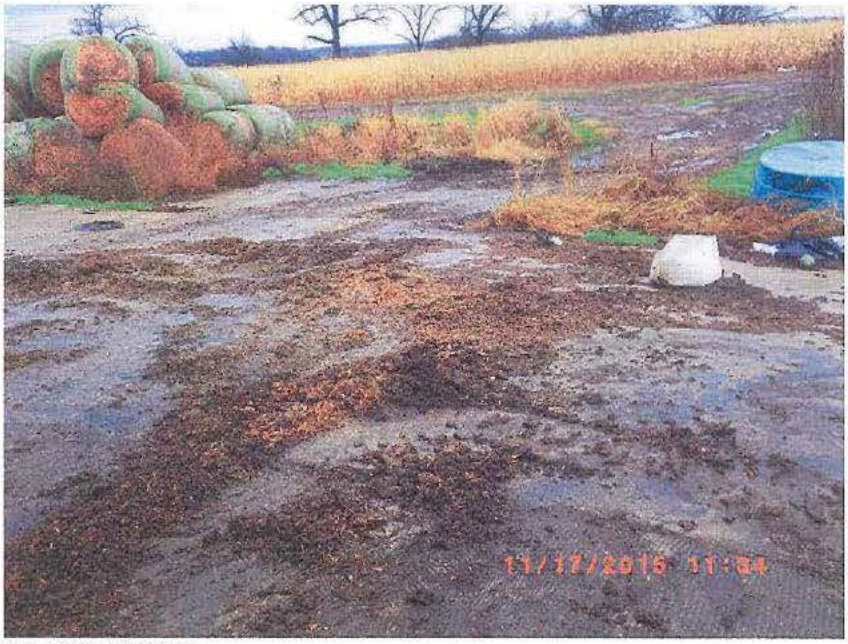
18: RIMG0570
Description: Spilled feed between bags of silage.
Location: East of Silage Pad.
Camera Direction: West
Date/Time: November 17, 2015 11:29 A.M.

19: RIMG0571
Description: EPA observed spilled feed and process wastewater from spilled feed on and around the Silage Pad.
Location: Northeast corner of Silage Pad.
Camera Direction: Southwest
Date/Time: November 17, 2015 11:31 A.M.

20: RIMG0572
Description: Round bales of straw are stored east of the Silage Pad.
Location: East of the Silage Pad.
Camera Direction: West
Date/Time: November 17, 2015 11:32 A.M.

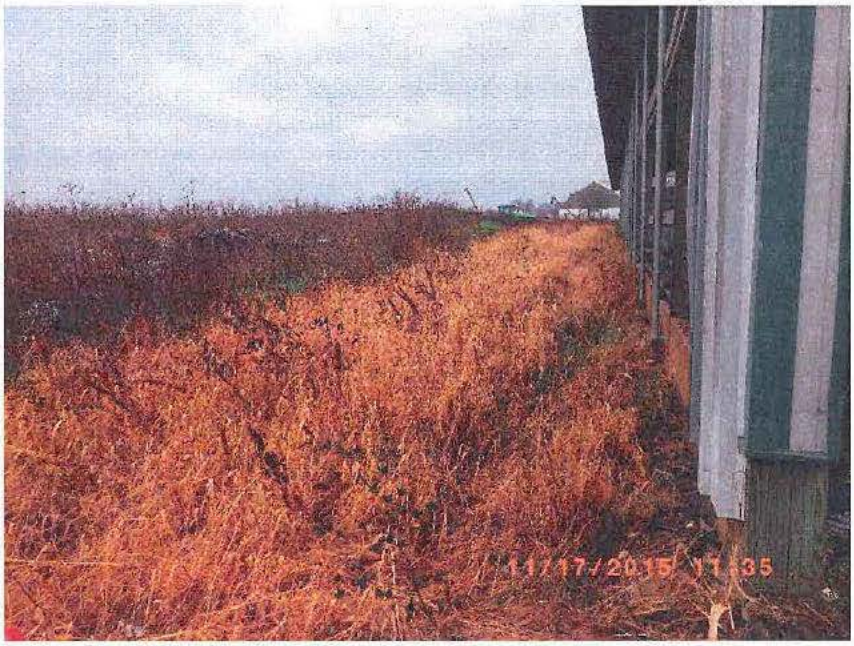
At the 2010 Freestall Barn, EPA observed track in and track out of manure and feed from the northeast door. The manure and feed could be transported with precipitation to the east and then south.

South of the 2010 Freestall Barn is the concrete lined Manure Pond. Manure from the barns is manually pushed into the Manure Pond. Any track in and track out from the east side of the 2000, 2002, 2004, and south side of the 2010 Freestall Barns would flow with precipitation into the Manure Pond.

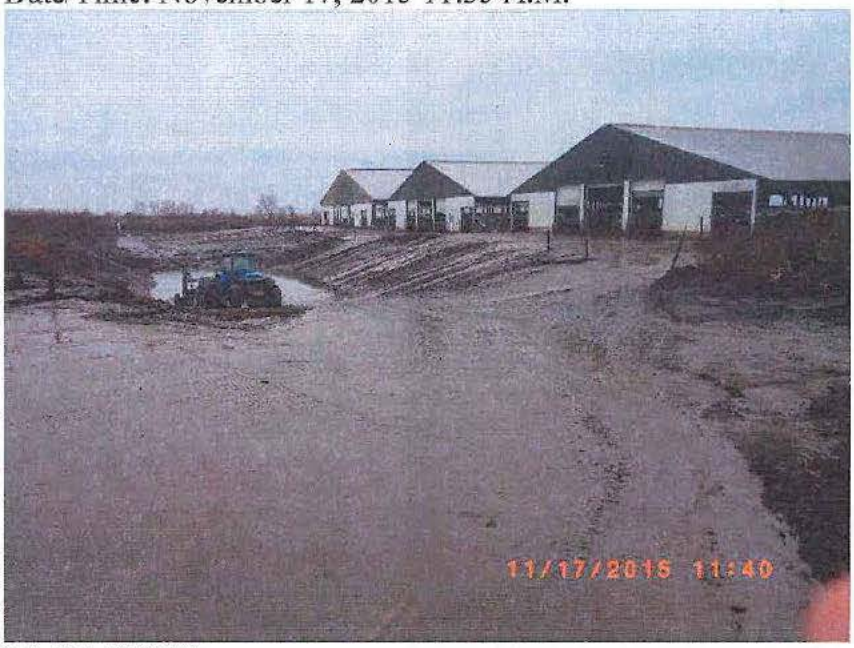


21: RIMG0573
Description: Track in and track out of manure and feed at the northeast end of the 2010 Freestall Barn. The manure and feed could be transported with precipitation to the east.
Location: Northeast end of the 2010 Freestall Barn.
Camera Direction: Northwest
Date/Time: November 17, 2015 11:34 A.M.

22: RIMG0574
Description: Track in and track out of manure and feed at the northeast end of the 2010 Freestall Barn. The manure and feed could be transported with precipitation to the east.
Location: Northeast end of the 2010 Freestall Barn.
Camera Direction: Northwest
Date/Time: November 17, 2015 11:35 A.M.

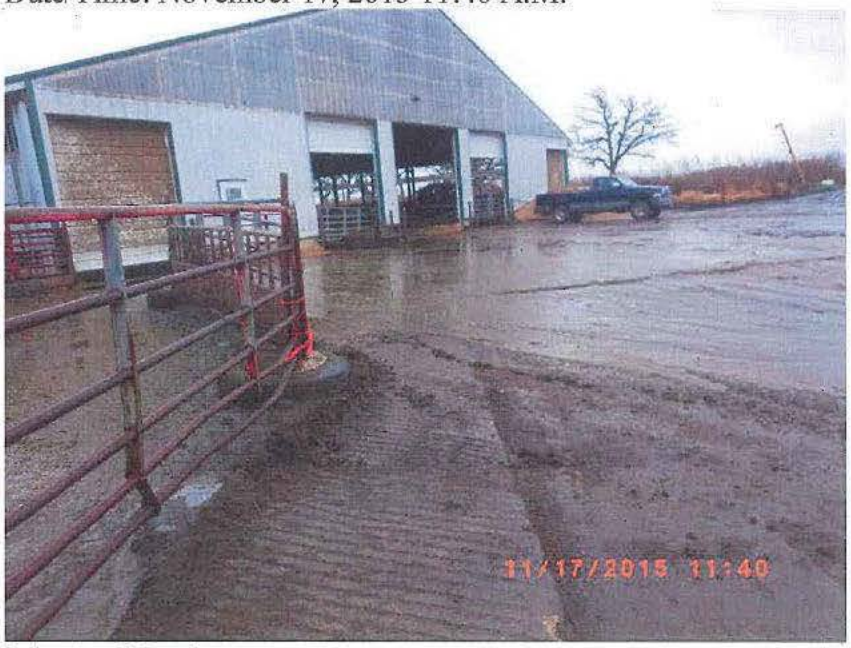


23: RIMG0575
Description: Scrap and garbage are piled in the field to the east of the 2010 Freestall Barn.
Location: East of 2010 Freestall Barn.
Camera Direction: Southwest
Date/Time: November 17, 2015 11:35 A.M.

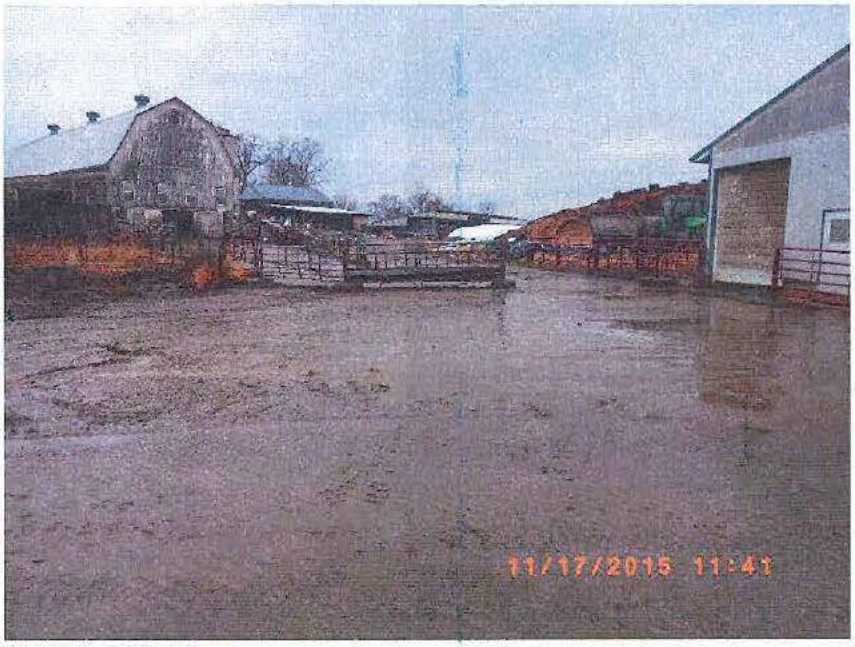


24: RIMG0576
Description: Manure and process wastewater from the freestall barns is pushed into the Manure Pond, which is lined with concrete.
Location: Southwest side of 2010 Freestall Barn.
Camera Direction: Soutwest
Date/Time: November 17, 2015 11:40 A.M.

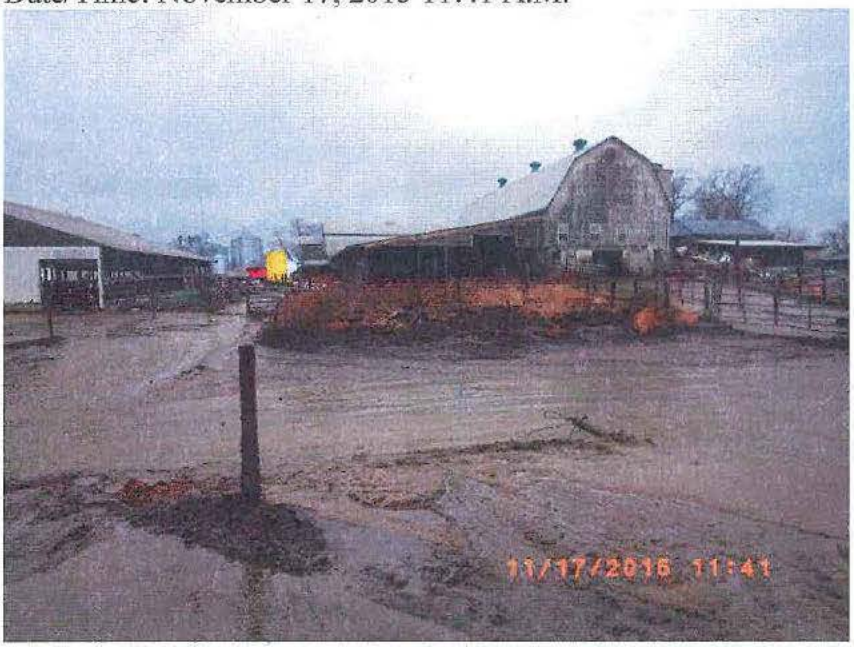
25: RIMG0577
Description: Manure and process wastewater from the freestall barns is pushed into the Manure Pond, which is lined with concrete.
Location: Southwest side of 2010 Freestall Barn.
Camera Direction: Soutwest
Date/Time: November 17, 2015 11:40 A.M.



26: RIMG0578
Description: Track in and track out of manure and process wastewater from the southwest side of the 2010 Freestall Barn would flow with precipitation to the Manure Pond.
Location: Southwest side of the 2010 Freestall Barn.
Camera Direction: East
Date/Time: November 17, 2015 11:40 A.M.



27: RIMG0579
Description: East side of the Milking Parlor. Track in and track out would flow with precipitation to the Manure Pond.
Location: North of Manure Pond.
Camera Direction: Northwest
Date/Time: November 17, 2015 11:41 A.M.



28: RIMG0580
Description: East side of the Milking Parlor and freestall barn to the left (south). Track in and track out would flow with precipitation to the Manure Pond.
Location: North of Manure Pond.
Camera Direction: West
Date/Time: November 17, 2015 11:41 A.M.

There is a concrete access road located at the northeast corner of the Manure Pond. This access road is used to haul manure from the Manure Pond to the land application fields. Land application equipment was parked on the access road. EPA observed that there was a significant amount of manure all along the access road. EPA walked the length of the road and at times, the manure was several inches deep. EPA asked the facility owners why there was such a large amount of manure on this road and they stated that during the loading of the trucks, manure spills there. They were not concerned about it and stated that they will use a skid steer to push the manure along the access road to the north and back into the Manure Pond. Berms on either side of the access road prevented the manure from flowing off the road and the road level at the south end was higher than the north end, so manure could not flow off. EPA did not observe any manure from the road reach a surface waterway.

29: RIMG0581
Description: Manure application equipment in access road that leads to crop field so the south. This access road is concrete with berms on either side. Manure slurry on the access road was several inches deep. Facility owners stated that the manure can be scraped beck to the Manure Pond. EPA did not observe any runoff from this access road to a surface water.
Location: Southeast of 2010 Freestall Barn.
Camera Direction: North
Date/Time: November 17, 2015 11:49 A.M.

30: RIMG0582
Description: Manure is several inches deep on access road to crop field to the south.
Location: South of 2010 Freestall Barn.
Camera Direction: North
Date/Time: November 17, 2015 11:50 A.M.

31: RIMG0583
Description: Low point in access road is bermed on either side.
Location: South of 2010 Freestall Barn.
Camera Direction: North
Date/Time: November 17, 2015 11:51 A.M.

32: RIMG0584
Description: Crop field south of production area. EPA did not observe any flow pathways of manure or process wastewater from the access road through the crop field and to a surface waterway.
Location: Southeast of production area of facility.
Camera Direction: Southwest
Date/Time: November 17, 2015 11:52 A.M.

33: RIMG0585
Description: South side of Manure Pond. EPA estimated approximately five feet of freeboard in the Manure Pond. Facility owners stated that the manure would back up into the middle barn before it topped the berms and overflowed.
Location: Southeast corner of the Manure Pond.
Camera Direction: Northwest
Date/Time: November 17, 2015 11:53 A.M.

34: RIMG0586
Description: Sand pushed out on the south side of the 2004 Freestall Barn.
Location: South of 2004 Freestall Barn
Camera Direction: East
Date/Time: November 17, 2015 11:59 A.M.

At the southern end of the main production area, east of Highway 120, there is a drainage ditch that transports flow from the east to the west. The drainage ditch flows through a culvert under Highway 120. At portions east of the 2004 Freestall Barn, this drainage ditch did not have flow in it. Once it was west of the 2004 Freestall Barn, there was flow in the drainage ditch all the way to the culvert under Highway 120.

35: RIMG0587
Description: A drainage ditch on the south side of the facility conveyed flow to the west.
Location: Southwest of 2004 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:00 Noon

36: RIMG0588
Description: A drainage ditch on the south side of the facility conveyed flow to the west.
Location: Southwest of 2004 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:00 Noon

Just to the southwest of the 2004 Freestall Barn, EPA observed a channel conveying flow from the north. EPA followed the channel up the yard to the north and observed that the flow contained process wastewater from the open pens on the west side of the 2000, 2002, and 2004 Freestall Barns. There was no containment for manure, feed and process wastewater from the west doors of the barns or from their open pens. Precipitation from the north part of the production area, north of the Milking Parlor, also would flow along the facility access roads and eventually to this channel. Note that EPA observed no containment for manure, feed and process wastewater from the Calf Barn, the Heifer Barn and its open pen and the Silage Pad.

Process wastewater from the Calf Hutches appeared to also flow with precipitation to this channel and then to the drainage ditch, although EPA could not confirm this connection due to a pile of debris and equipment that blocked the pathway.

Additionally, feed is mixed on in the space just to the west of the 2000 Freestall Barn. EPA observed spilled feed on the ground which would be transported by precipitation to the south and to this channel and then to the drainage ditch.

37: RIMG0589
Description: A channel of flow comes from the north and flows to the south and into the drainage ditch before flowing west.
Location: Southwest of 2004 Freestall Barn.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:00 Noon

38: RIMG0590
Description: EPA followed the flow channel to the north.
Location: West of 2004 Freestall Barn.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:00 Noon

39: RIMG0591
Description: Looking downstream at the flow from the north before it reaches the drainage ditch.
Location: West of 2004 Freestall Barn.
Camera Direction: South
Date/Time: November 17, 2015 12:00 Noon

40: RIMG0592
Description: The drainage ditch was dry east of the confluence of the flow channel from the north.
Location: Southwest of the 2004 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:01 P.M.

41: RIMG0593
Description: EPA followed the flow channel upstream and to the north.
Location: West of 2004 Freestall Barn.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:02 P.M.

42: RIMG0594
Description: There was flow in the channel that originated north of the drainage ditch.
Location: West of 2004 Freestall Barn.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:02 P.M.

43: RIMG0595
Description: EPA followed the flow channel to the calf hutches and the access road west of the freestall barns.
Location: West of 2004 Freestall Barn.
Camera Direction: North
Date/Time: November 17, 2015 12:02 P.M.

44: RIMG0596
Description: Flow from the access road channelized and flowed south to the drainage ditch.
Location: West of 2002 Freestall Barn.
Camera Direction: North and down
Date/Time: November 17, 2015 12:03 P.M.

45: RIMG0597
Description: EPA observed flow in the channel the whole length from the drainage ditch up to the access road.
Location: West of 2002 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:03 P.M.

46: RIMG0598
Description: Looking downstream at the flow channel off the access road west of the freestall barns.
Location: West of 2002 Freestall Barn.
Camera Direction: Southwest and down
Date/Time: November 17, 2015 12:03 P.M.

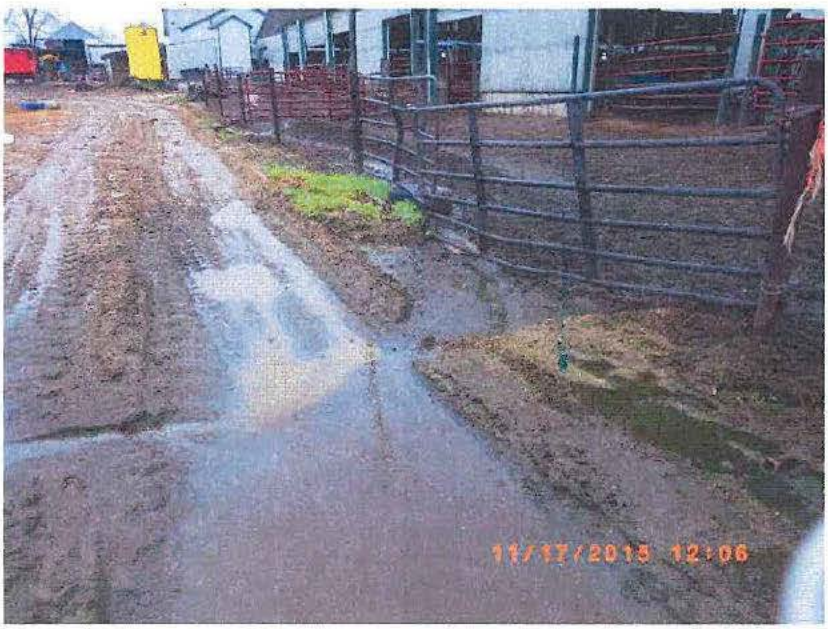
47: RIMG0599
Description: Flow off the calf hutches appeared to flow to the flow channel from the access road.
Location: West of 2002 Freestall Barn.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:03 P.M.

48: RIMG0600
Description: Flow off the calf hutches appeared to flow to the flow channel from the access road.
Location: West of 2002 Freestall Barn.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:04 P.M.

49: RIMG0601
Description: EPA could not confirm a connection between the flow off the calf hutches to the flow channel from the access road due to a pile of debris and equipment.
Location: West of 2002 Freestall Barn.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:04 P.M.

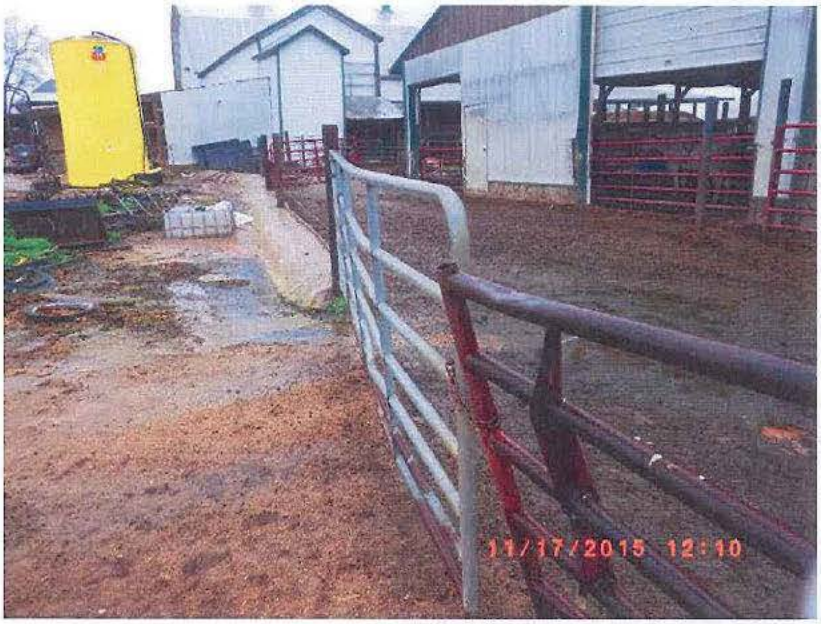
50: RIMG0602
Description: The runoff from the access road has manure and process wastewater in it from the open pens on the west side of the freestall barns.
Location: West of 2002 Freestall Barn.
Camera Direction: East
Date/Time: November 17, 2015 12:05 P.M.

51: RIMG0603
Description: Open pens on west side of the freestall barns do not have containment for manure and process wastewater.
Location: West of 2002 Freestall Barn.
Camera Direction: North
Date/Time: November 17, 2015 12:06 P.M.



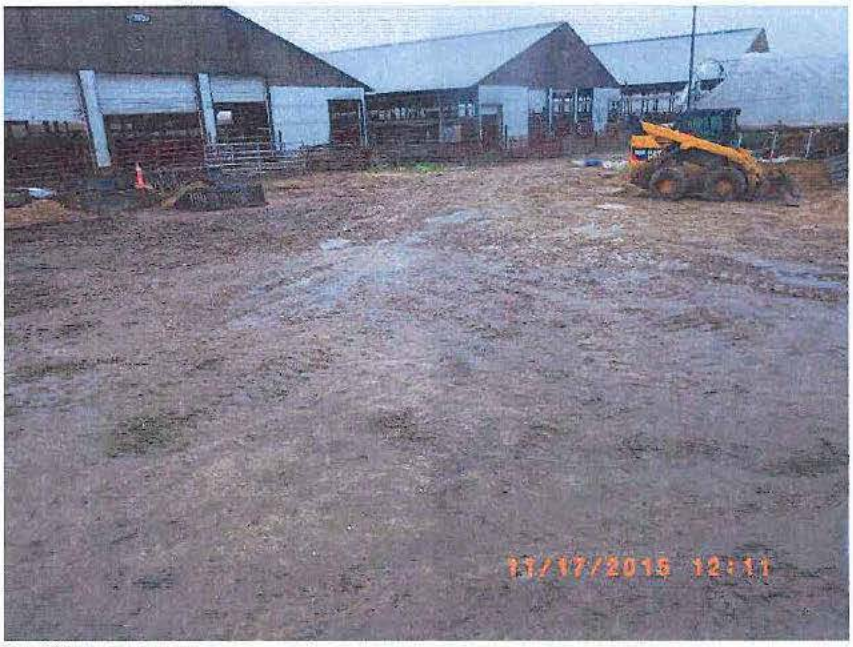
52: RIMG0604
Description: Manure and process wastewater from the open pens west of the freestall barns flows with precipitation to the channel west of the access road. From there it flows south and joins the drainage ditch that flows west.
Location: West of 2002 Freestall Barn.
Camera Direction: North
Date/Time: November 17, 2015 12:06 P.M.

53: RIMG0605
Description: No containment for the manure and process wastewater in the open pens west of the freestall barns.
Location: West of 2002 Freestall Barn.
Camera Direction: South
Date/Time: November 17, 2015 12:07 P.M.



54: RIMG0606
Description: Concrete curbing west of the 2000 Freestall Barn prevents manure and process wastewater from the open pens from flowing to the west. There is nothing to prevent it from flowing to the south and out of the pen, though.
Location: West of 2000 Freestall Barn.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:10 P.M.

55: RIMG0607
Description: Channelization of manure and process wastewater from open pen west and north of the 2000 Freestall Barn to the south.
Location: West of 2000 Freestall Barn.
Camera Direction: South
Date/Time: November 17, 2015 12:10 P.M.



56: RIMG0608
Description: Open pens west of the freestall barns do not have any containment for manure and process wastewater. Feed mixing takes place in this area and spilled feed is also able to be transported with precipitation to the south.
Location: West of 2000 Freestall Barn.
Camera Direction: Southeast
Date/Time: November 17, 2015 12:11 P.M.

57: RIMG0609
Description: Process wastewater on the ground is transported to the south by precipitation.
Location: West of 2000 Freestall Barn.
Camera Direction: South
Date/Time: November 17, 2015 12:14 P.M.

EPA observed three pipes in the space between the 2000 Freestall Barn and the Milking Parlor. The pipes discharge storm water from various locations. One pipe is connected to the area where the milk truck parks, one is connected to a sump pit for storm water inside the Milking Parlor and one is from roof water and is tied to a downspout.

Since this water flows along the ground where there is manure, feed and process wastewater, it aids in the transport of those pollutants to the channel and then to the drainage ditch.

58: RIMG0610
Description: Pipes discharge storm water from where the milk truck loads and from the sump pump for storm water in the Milking Parlor.
Location: West of Milking Parlor
Camera Direction: East
Date/Time: November 17, 2015 12:14 P.M.

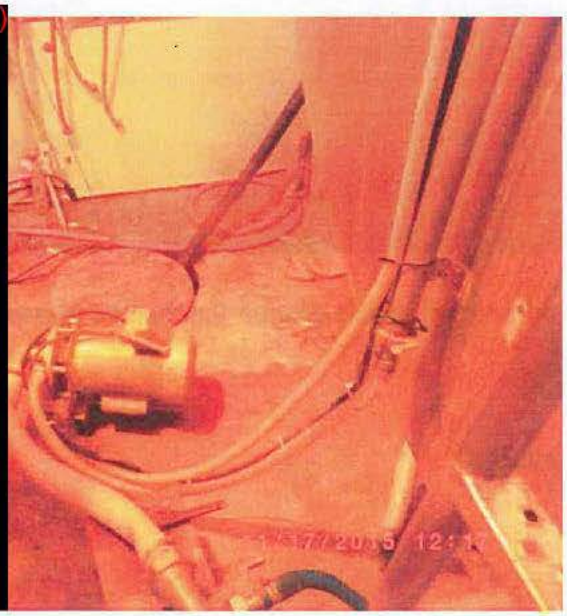
59: RIMG0611
Description: Pipe behind pallet discharges roof water.
Location: West of Milking Parlor.
Camera Direction: Southeast
Date/Time: November 17, 2015 12:15 P.M.

60: RIMG0612
Description: Flexible hosing from sump pit discharges storm water to white pipe.
Location: West of Milking Parlor.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:16 P.M.

Ex. 6 (Personal Privacy)

61: RIMG0613
Description: Flexible hosing from sump pit discharges storm water to white pipe.
Location: West of Milking Parlor.
Camera Direction: Down
Date/Time: November 17, 2015 12:16 P.M.

Ex. 6 (Personal Privacy)

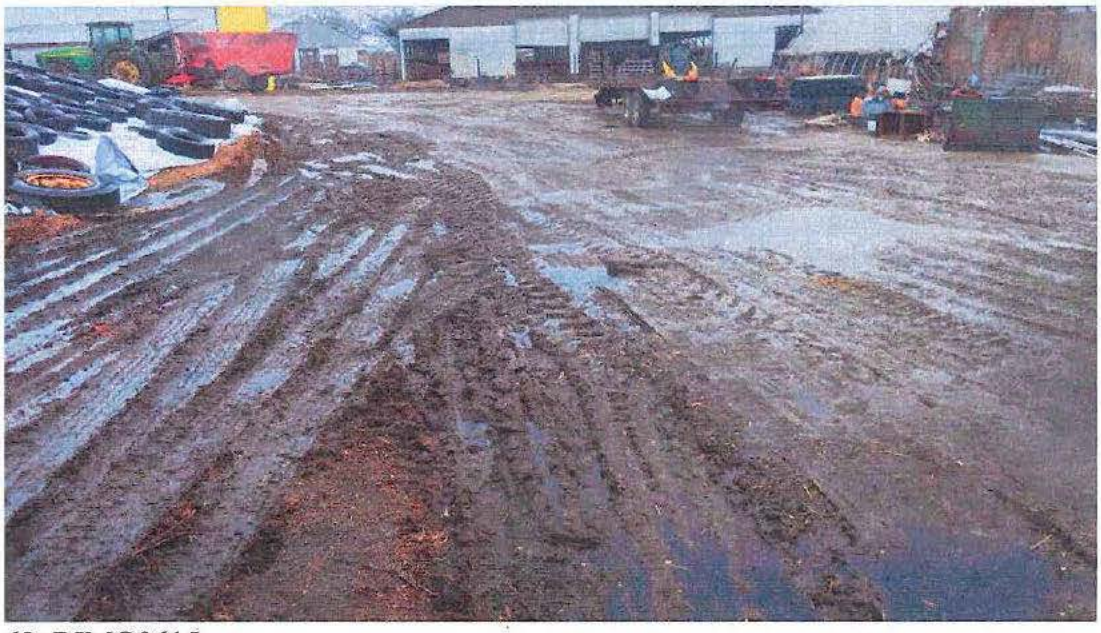


62: RIMG0614
Description: Sump pit with pump for storm water.
Location: Milking Parlor.
Camera Direction: Down
Date/Time: November 17, 2015 12:17 P.M.

EPA had to change the battery in the camera and the date and time stamp settings were lost. Additionally, the photo aspect ratio setting was changed.

Some of the spilled feed in the feed mixing area flowed to the south in a different pathway, one that flowed between the calf hutches and the building to the west. EPA noted that the standing water was dark colored and truck tire ruts assisted the flow by creating channels. At times, there was not any flow, but the vegetation along the pathway appeared to be nutrient burned and the nutrient burned vegetation led to the drainage ditch.

Used beddinig from the calf hutches was piled on the west side of the calf hutch area and leachate of process wastewater from the used bedding would flow with precipitation to this pathway.



63: RIMG0615
Description: Feed mixing area has spilled feed on the ground that can be transported with precipitation.
Location: West of 2000 Freestall Barn.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:19 P.M.

64: RIMG0616
Description: Process wastewater was observed in the water on the ground. Water is dark brown.
Location: West of 2000 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:19 P.M.

65: RIMG0617
Description: Process wastewater was observed in the water on the ground. Water is dark brown.
Location: West of 2000 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:19 P.M.

66: RIMG0618
Description: Process wastewater was observed in the water on the ground. Water is dark brown and plume of process wastewater was observed in the flow channels.
Location: West of 2000 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:19 P.M.

67: RIMG0619
Description: Process wastewater was observed in the water on the ground. Water is dark brown and plume of process wastewater was observed in the flow channels.
Location: West of 2000 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:20 P.M.

68: RIMG0620
Description: The flow channels from the mixing area flowed to the south, west of the calf hutches.
Location: North of the calf hutches.
Camera Direction: North
Date/Time: November 17, 2015 12:20 P.M.

69: RIMG0621
Description: Pile of gravel west of the calf hutches.
Location: West of the calf hutches.
Camera Direction: South
Date/Time: November 17, 2015 12:20 P.M.

70: RIMG0622
Description: EPA followed the flow pathway from the feed mixing area to the south between the calf hutches and the building.
Location: Southwest of the calf hutches.
Camera Direction: South
Date/Time: November 17, 2015 12:21 P.M.

71: RIMG0623
Description: EPA followed the flow pathway from the feed mixing area to the south between the calf hutches and the building.
Location: Southwest of the calf hutches.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:21 P.M.

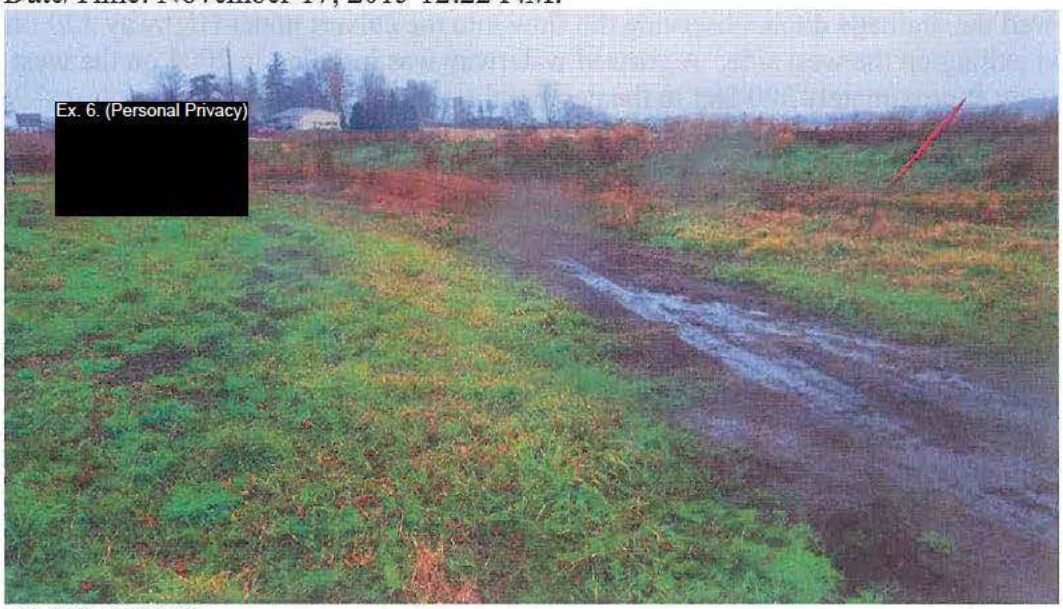
72: RIMG0624
Description: Used straw from the calf hutches was piled west of the hutches. Manure and process wastewater from the used straw could flow with precipitation to the south.
Location: Southwest of the calf hutches.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:21 P.M.

73: RIMG0625
Description: Flow channelization in the yard west of the calf hutches showed that stormwater flowed to the south.
Location: Southwest of the calf hutches.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:21 P.M.

74: RIMG0626
Description: Flow channelization in the yard west of the calf hutches showed that stormwater flowed to the south.
Location: Southwest of the calf hutches.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:21 P.M.

75: RIMG0627
Description: Flow channelization in the yard west of the calf hutches showed that stormwater flowed to the south.
Location: Southwest of the calf hutches.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:22 P.M.

76: RIMG0628
Description: Flow channelization in the yard west of the calf hutches showed that stormwater flowed to the south. The runoff of process wastewater from the feed mixing area and calf hutches would be transported with precipitation in these channels. Note the lack of green vegetation along the pathway.
Location: Southwest of the calf hutches.
Camera Direction: West
Date/Time: November 17, 2015 12:22 P.M.



77: RIMG0629
Description: Flow channelization in the yard west of the calf hutches showed that stormwater flowed to the south.
Location: Southwest of the calf hutches.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:22 P.M.

78: RIMG0630
Description: The pathway appeared to be nutrient burned but did not have a continuous flow on the day of the inspection.
Location: Along Wisconsin 120 west of 2004 Freestall Barn.
Camera Direction: West
Date/Time: November 17, 2015 12:22 P.M.

EPA then followed the drainage ditch, observing the flow into the culvert under Highway 120 on the east side and exiting on the west side. A grassed waterway was installed in 2004 on the west side of the highway approximately 300 feet to the perennial stream. The vegetation was approximately three feet tall, but EPA followed the flow until the ground leveled off and no water could be seen. EPA was not able to find a flow under the vegetation until near the end of the grassed waterway where there was a defined channel. EPA observed the confluence of the grassed waterway with the perennial stream.

The owners stated that they had assistance from the NRCS and WDNR for the design and installation of the grassed waterway. EPA received a pdf scan of the construction plans for the grassed waterway, dated March 2004. This scan is Attachment B of this report.

Once at the West Branch of the North Branch of Nippersink Creek, EPA observed the bed and bank structure.

79: RIMG0631
Description: A culvert for transporting flow under Wisconsin 120.
Location: Along Wisconsin 120 west of 2004 Freestall Barn.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:24 P.M.

80: RIMG0632
Description: The water in the drainage ditch was dark and full of solids.
Location: Along Wisconsin 120 west of 2004 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:24 P.M.

81: RIMG0633
Description: The water in the drainage ditch was dark and full of solids.
Location: Along Wisconsin 120 west of 2004 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:24 P.M.

82: RIMG0634
Description: The flow through the culvert under Wisconsin 120 was downstream of the confluence of the flow channel west of the freestall barns and the drainage ditch south of the production area.
Location: Along Wisconsin 120 west of 2004 Freestall Barn.
Camera Direction: Down
Date/Time: November 17, 2015 12:25 P.M.

83: RIMG0635
Description: The vegetation along the drainage ditch appeared nutrient burned.
Location: Along Wisconsin 120 west of 2004 Freestall Barn.
Camera Direction: East
Date/Time: November 17, 2015 12:25 P.M.

84: RIMG0636
Description: The culvert on the west side of Wisconsin 120 allows flow to go to the west.
Location: On the west side of Wisconsin 120 at the culvert for flow under the road.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:27 P.M.

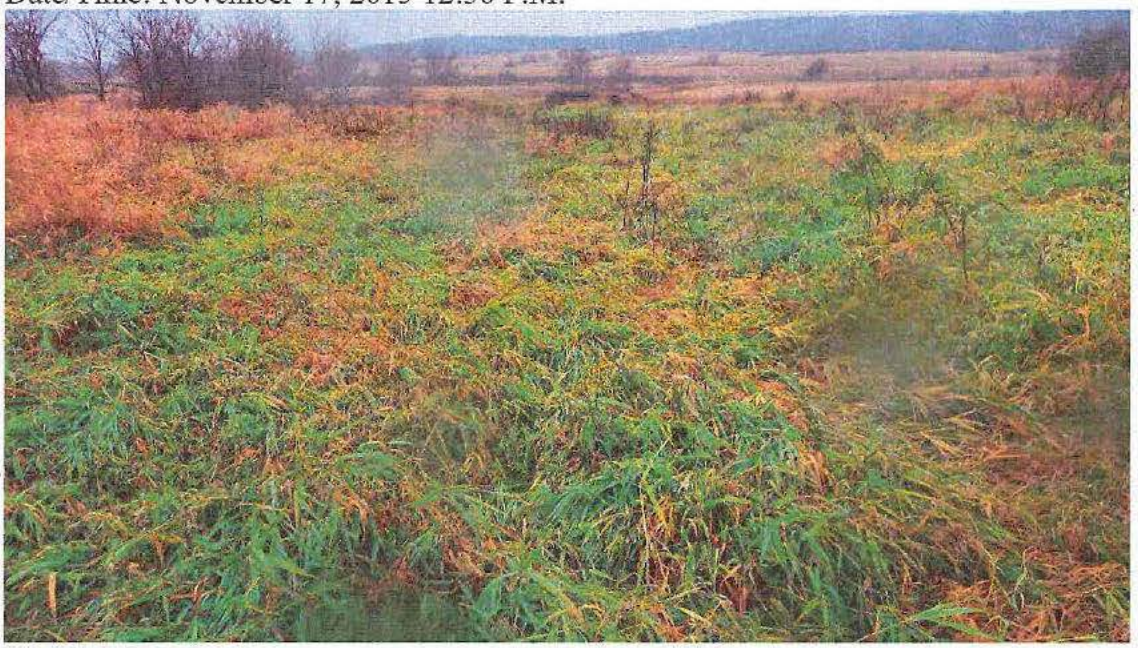
85: RIMG0637
Description: There is a significant amount of flow in the channel after flowing under Wisconsin 120.
Location: On the west side of Wisconsin 120 at the culvert for flow under the road.
Camera Direction: West
Date/Time: November 17, 2015 12:27 P.M.

86: RIMG0638
Description: The area on the west side of Wisconsin 120 is considered a grassed waterway and according to the facility owners, was designed and approved by NRCS and DNR.
Location: On the west side of Wisconsin 120 at the culvert for flow under the road.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:27 P.M.

87: RIMG0639
Description: EPA followed the flow pathway under the vegetation for some distance from the road.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:29 P.M.

88: RIMG0640
Description: EPA observed flow beneath the vegetation for some distance into the grassed waterway, but then observed that the flow stopped.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: Northeast
Date/Time: November 17, 2015 12:29 P.M.

89: RIMG0641
Description: EPA observed flow beneath the vegetation for some distance into the grassed waterway, but then observed that the flow stopped.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: Down
Date/Time: November 17, 2015 12:30 P.M.



90: RIMG0642
Description: EPA continued to walk to the end of the grassed waterway to the perennial Nippersink Creek.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: West
Date/Time: November 17, 2015 12:31 P.M.

91: RIMG0643
Description: EPA continued to walk to the end of the grassed waterway to the perennial Nippersink Creek.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: West
Date/Time: November 17, 2015 12:35 P.M.

92: RIMG0644
Description: EPA continued to walk to the end of the grassed waterway to the perennial Nippersink Creek.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: West
Date/Time: November 17, 2015 12:37 P.M.

93: RIMG0645
Description: EPA continued to walk to the end of the grassed waterway to the perennial Nippersink Creek.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: West
Date/Time: November 17, 2015 12:38 P.M.

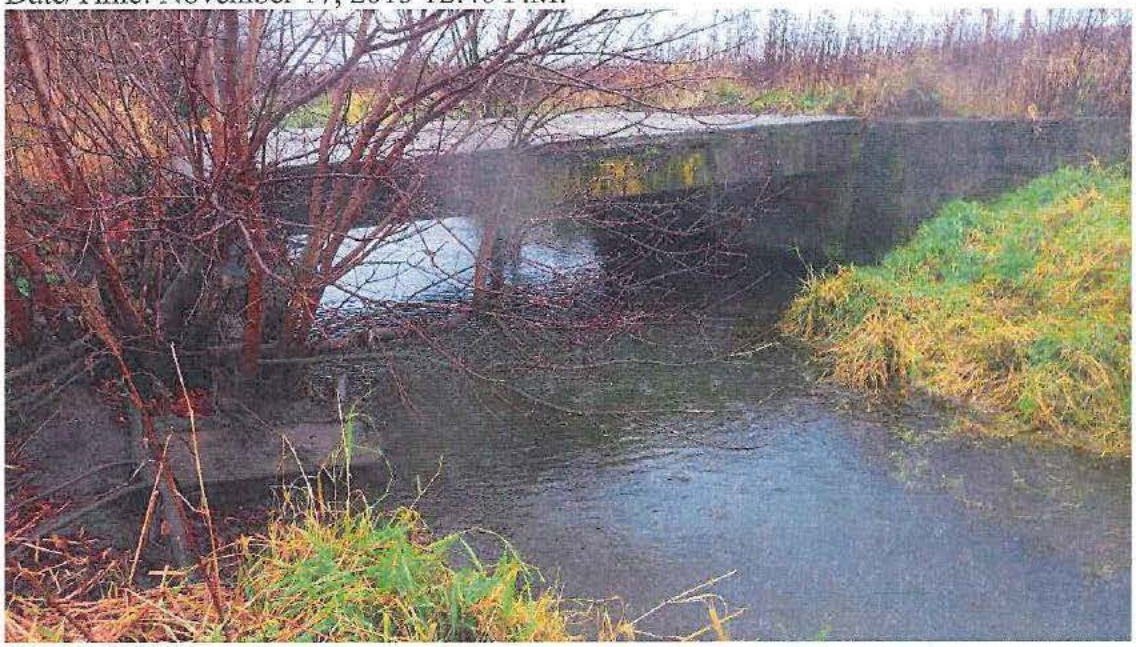
94: RIMG0646
Description: At Nippersink Creek, EPA observed a flow channel from the grassed waterway into the creek.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:39 P.M.

95: RIMG0647
Description: At Nippersink Creek, EPA observed a flow channel from the grassed waterway into the creek.
Location: On the west side of Wisconsin 120 in the grassed waterway.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:39 P.M.

96: RIMG0648
Description: Bridge over Nippersink Creek. Owners stated that there is water in the creek most of the time. Note the bed and bank structure of the creek.
Location: At Nippersink Creek west of the facility.
Camera Direction: South
Date/Time: November 17, 2015 12:39 P.M.

Ex. 6 (Personal Privacy)

97: RIMG0649
Description: Owners stated that there is water in the creek most of the time.
Location: At Nippersink Creek west of the facility.
Camera Direction: North
Date/Time: November 17, 2015 12:40 P.M.



98: RIMG0650
Description: Bridge over Nippersink Creek.
Location: At Nippersink Creek west of the facility.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:40 P.M.

99: RIMG0651
Description: Bridge over Nippersink Creek.
Location: At Nippersink Creek west of the facility.
Camera Direction: Down
Date/Time: November 17, 2015 12:41 P.M.

100: RIMG0652
Description: Documenting bed and bank in Nippersink Creek.
Location: At Nippersink Creek west of the facility.
Camera Direction: Down
Date/Time: November 17, 2015 12:42 P.M.

EPA then walked east back up the grassed waterway to Highway 120 and then north to observe the facility buildings on the west side of the road.

On the west side of Highway 120, there is a storage building with a small area attached that confined a few cattle. Several grain bins and two small heifer barns were also located on this part of the facility. EPA walked to the storage building first and observed that there was no containment for manure, feed or process wastewater from the animal confinement section. EPA documented a runoff pathway from this barn to the south toward the grassed waterway. EPA did not observe this runoff reach a surface waterway on the day of the inspection.

EPA then walked to the north and noted a significant amount of feed on the ground around the grain bins.

101: RIMG0653
Description: Looking to the northwest at the grassed waterway, on the right side of the photo, from the road.
Location: On Wisconsin 120.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:48 P.M.

102: RIMG0655
Description: Runoff from the animal confinement area next to the Storage Shed flows to the south toward the grassed waterway.
Location: Southeast corner of the Storage Shed.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:50 P.M.

103: RIMG0656
Description: The south side of the Storage Shed on the west side of Wisconsin 120. A few cattle are confined here.
Location: East of the Storage Shed.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:50 P.M.

104: RIMG0657
Description: The south side of the Storage Shed on the west side of Wisconsin 120. There is no containment for manure and process wastewater from the cattle confined here.
Location: East of the Storage Shed.
Camera Direction: West
Date/Time: November 17, 2015 12:51 P.M.

105: RIMG0658
Description: Grain spilled on the ground around the grain bins west of Highway 120.
Location: Grain bin area west of Highway 120.
Camera Direction: Down
Date/Time: November 17, 2015 12:53 P.M.

106: RIMG0659
Description: South heifer barn and open pen have no containment for manure and process wastewater.
Location: North of Storage Shed.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:53 P.M.

107: RIMG0660
Description: Pile of manure and used feed at the southeast corner of the open pen of the Heifer Barn.
Location: East side of the Heifer Barn.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:53 P.M.

108: RIMG0661
Description: Grain spilled around the grain bins.
Location: Grain bin area.
Camera Direction: West
Date/Time: November 17, 2015 12:55 P.M.

109: RIMG0662
Description: Spilled feed around the grate for the loading auger.
Location: Grain bin area.
Camera Direction: Down
Date/Time: November 17, 2015 12:55 P.M.

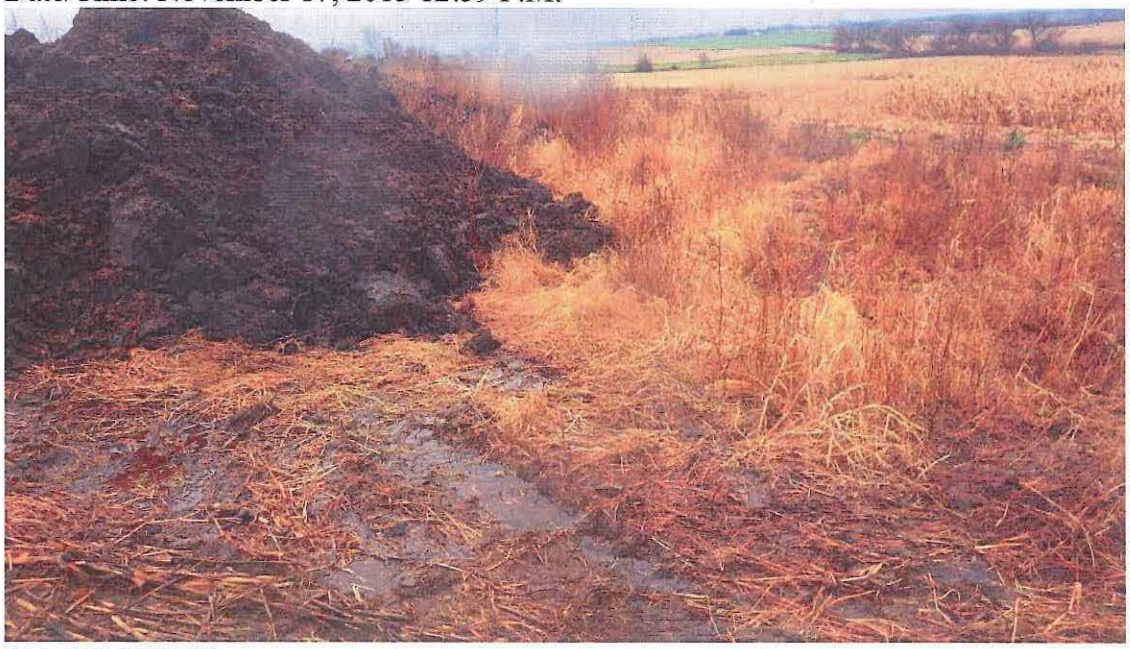
110: RIMG0663
Description: Significant amount of spilled feed around the grain bins.
Location: Grain bin area.
Camera Direction: South
Date/Time: November 17, 2015 12:56 P.M.

EPA walked north to the heifer barn north of the grain bin and observed that this barn also had an open pen attached to it with no containment for manure, feed, or process wastewater. A pile of manure was stacked outside the open pen. Any runoff of pollutants would flow with precipitation to the west toward a crop field. EPA did not observe any runoff from this barn or the open pen reach a surface water on the day of the inspection.

111: RIMG0664
Description: North heifer barn and open pen have no containment for manure and process wastewater.
Location: Heifer barn north of the grain bin area.
Camera Direction: West
Date/Time: November 17, 2015 12:56 P.M.

112: RIMG0665
Description: Manure, feed and process wastewater from the north heifer barn is not contained and could flow with precipitation to the south or west.
Location: Heifer barn north of the grain bin area.
Camera Direction: Northwest
Date/Time: November 17, 2015 12:58 P.M.

113: RIMG0666
Description: Process wastewater from the manure and feed piled by the north heifer barn is not contained and can flow to the west toward a crop field.
Location: West of the north heifer barn.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:59 P.M.



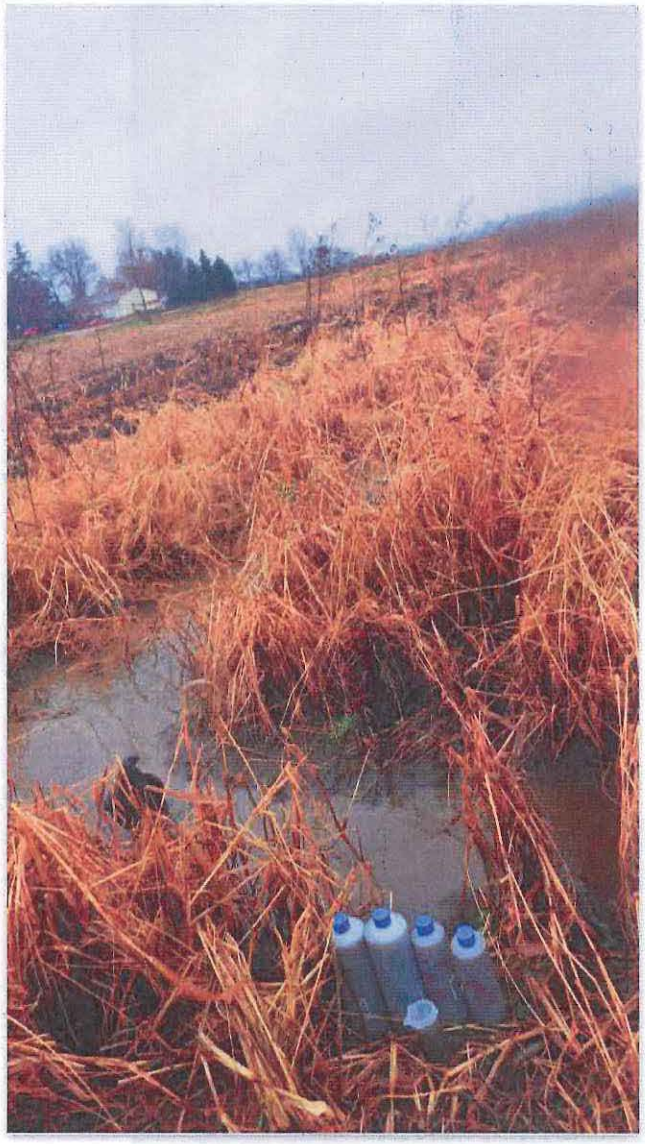
114: RIMG0667
Description: Process wastewater from the manure and feed piled by the north heifer barn is not contained and can flow to the west toward a crop field.
Location: West of the north heifer barn.
Camera Direction: Southwest
Date/Time: November 17, 2015 12:59 P.M.

115: RIMG0668
Description: EPA did not observe the process wastewater from the north heifer barn reach a surface water on the day of the inspection.
Location: West of the north heifer barn.
Camera Direction: West
Date/Time: November 17, 2015 12:59 P.M.
EPA walked back to where the EPA vehicle was parked and explained that samples were going to be taken at two locations. EPA offered to split the samples with the facility owners and they stated that they wanted the splits. EPA gathered the sampling supplies and walked to the first sample location in the yard east of Highway 120 to the confluence of the flow channel from the north and the drainage ditch from the east.

EPA took sample S01, named "Before Ditch", at 1:40 P.M., from the flow channel just before it confluences with the drainage ditch from the east. A sample from this location would have any runoff from the Calf Barn and its open lot, the Heifer Barn north of the Calf Barn and its open lot, the 2000, 2002, and 2004 Freestall Barns and their open lots on the west side, the Calf Hutches, and from the east part of the feed mixing area. Any pollutants from these locations would flow over the ground to this flow channel before flowing into the drainage ditch and then under Highway 120 to the grassed waterway. Storm water from the three pipes south of the Milking Parlor also would aid in the transport of pollutants to this channel.

116: RIMG0669
Description: Sample S01, "Before Ditch", was taken from the flow channel in the yard east of Highway 120 before it flowed into the drainage ditch on the south side of the production area. This flow channel contained runoff from the freestall barns, the calf hutches, and the feed mixing area.
Location: In the yard east of Highway 120 before the confluence of the flow from the north with the flow in the east to west drainage ditch.
Camera Direction: Southwest
Date/Time: November 17, 2015 1:44 P.M.

117: RIMG0670
Description: Sample S01, "Before Ditch", was taken from the flow channel in the yard east of Highway 120 before it flowed into the drainage ditch on the south side of the production area. This flow channel contained runoff from the freestall barns, the calf hutches, and the feed mixing area.
Location: In the yard east of Highway 120 before the confluence of the flow from the north with the flow in the east to west drainage ditch.
Camera Direction: Southwest
Date/Time: November 17, 2015 1:44 P.M.

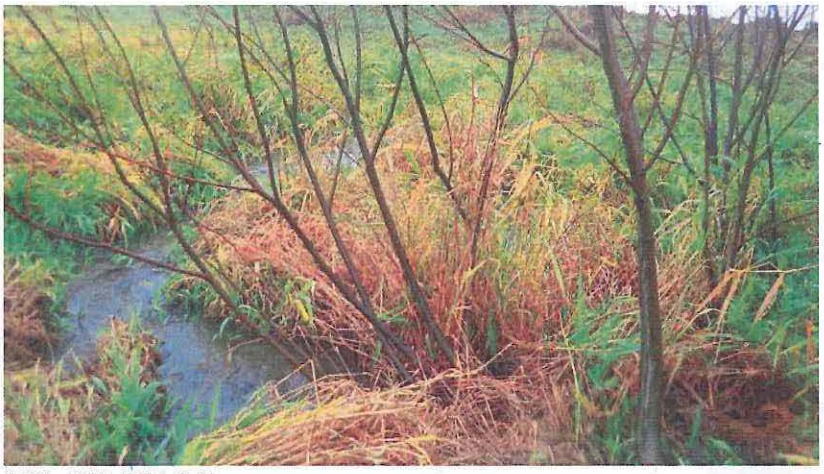


118: RIMG0671
Description: Sample S01, "Before Ditch", was taken from the flow channel in the yard east of Highway 120 before it flowed into the drainage ditch on the south side of the production area. This flow channel contained runoff from the freestall barns, the calf hutches, and the feed mixing area.
Location: In the yard east of Highway 120 before the confluence of the flow from the north with the flow in the east to west drainage ditch.
Camera Direction: Southwest
Date/Time: November 17, 2015 1:44 P.M.

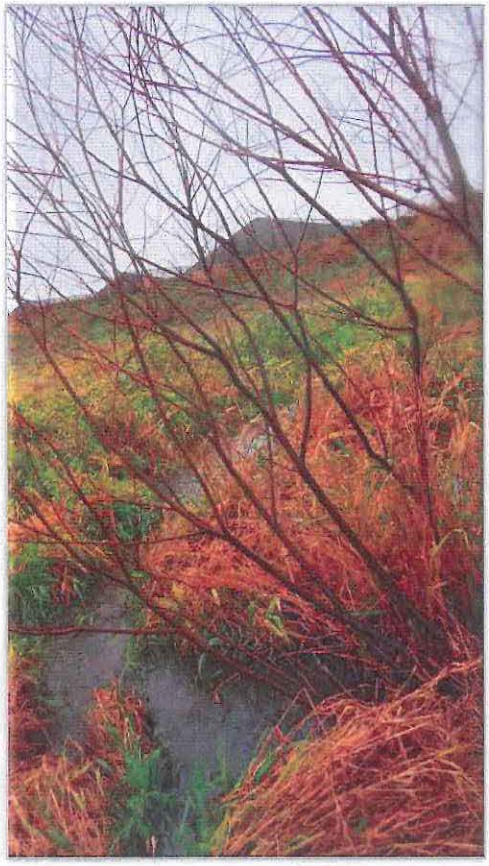
EPA crossed over Highway 120 to take the second sample, named "West Ditch", at 1:54 P.M. from the channel in the grassed waterway. If there was pollutants in this sample, it would indicate that the facility had not prevented the pollutants from leaving the production area and that pollutants had reached the grassed waterway. EPA went approximately 50 feet into the grassed waterway for this sample.

119: RIMG0672
Description: Sample S02, "West Ditch", was taken from the flow in the grassed waterway on the west side of Highway 120 after going under Highway 120 through a culvert.
Location: West of Highway 120.
Camera Direction: North
Date/Time: November 17, 2015 1:57 P.M.

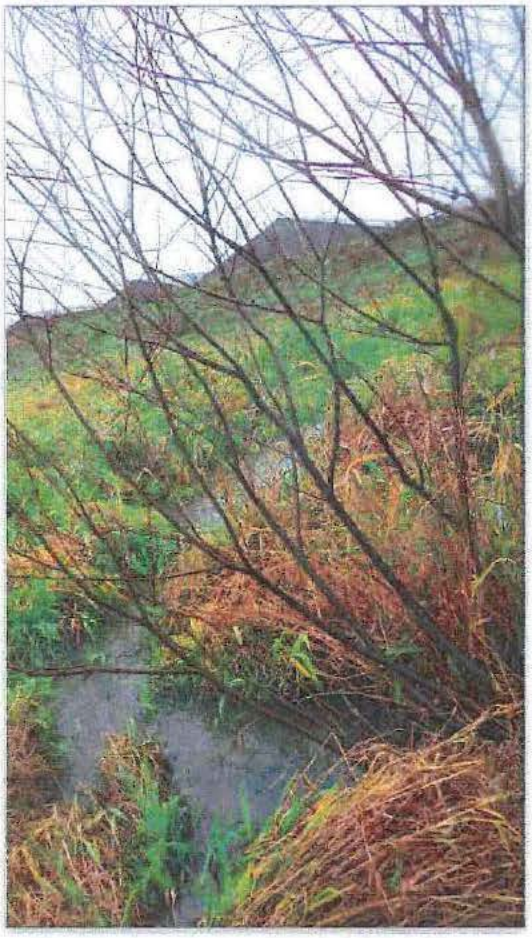
120: RIMG0673
Description: Sample S02, "West Ditch", was taken from the flow in the grassed waterway on the west side of Highway 120 after going under Highway 120 through a culvert.
Location: West of Highway 120.
Camera Direction: North
Date/Time: November 17, 2015 1:57 P.M.



121: RIMG0674
Description: The flow in the grassed waterway before where Sample S02 was taken.
Location: West of Highway 120.
Camera Direction: Northeast
Date/Time: November 17, 2015 1:57 P.M.



122: RIMG0675
Description: The flow in the grassed waterway before where Sample S02 was taken.
Location: West of Highway 120.
Camera Direction: Northeast
Date/Time: November 17, 2015 1:57 P.M.



123: RIMG0676
Description: The flow in the grassed waterway before where Sample S02 was taken.
Location: West of Highway 120.
Camera Direction: Northeast
Date/Time: November 17, 2015 1:57 P.M.

EPA walked back to the vehicle and created a trip blank sample, B01, named "[redacted]". EPA preserved the samples and gave the facility owners their samples. EPA then provided a closing conference to the facility owners and exited the facility at approximately 2:30 P.M.

EPA drove to the nearest gas station, approximately seven minutes away, to buy ice to preserve the samples and then called the laboratory where the fecal samples were going to be analyzed. EPA was not going to be able to reach the laboratory before they closed, so the fecal coliform samples were discarded the next day.

EPA got the vehicle washed at approximately 4:00 P.M.

ATTACHMENT B

CONSTRUCTION PLANS FOR Ex. 6 (Personal Privacy) GRASSED WATERWAY

CONSTRUCTION PLAN

PRACTICE [illegible]

LANDOWNER Ex. 6 (Personal Privacy)

ADDRESS [illegible]

LANDOWNER PHONE NO. Ex. 6 (Personal Privacy) COUNTY [illegible]

TOWNSHIP [illegible] T [illegible] N, R [illegible] E/W Sec. [illegible]

FIELD OFFICE [illegible] TELEPHONE NO. Ex. 6 (Personal Privacy)

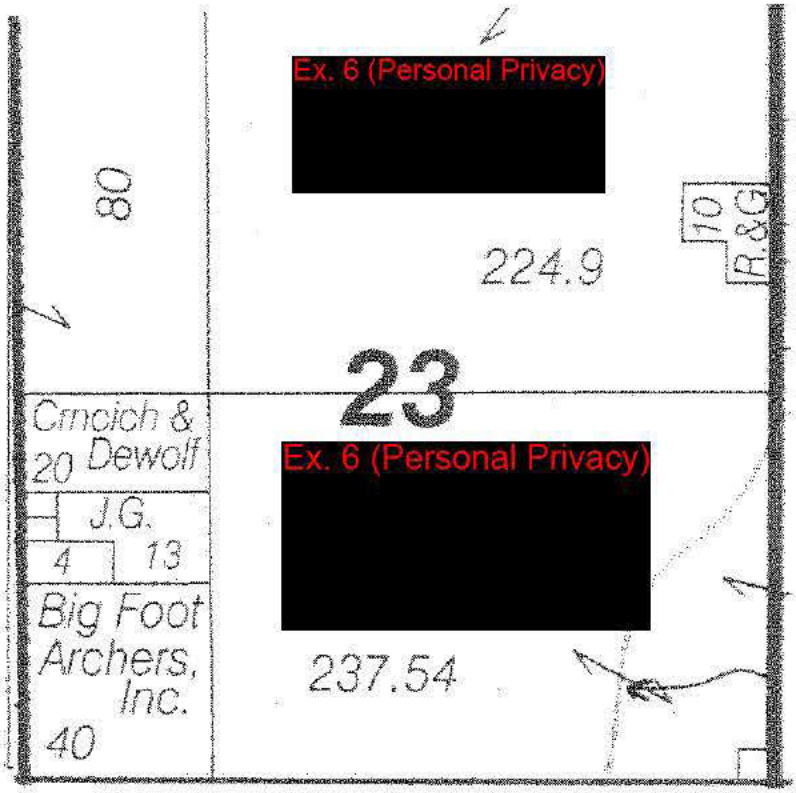
DIGGERS HOTLINE

Call 3 Work Days Before You Dig!

Toll Free
1-800-242-8511

Milw. Area
1-414-259-1181

TDD
1-800-542-2289



LOCATION MAP

NOTICE TO LANDOWNERS AND CONTRACTORS REGARDING UTILITIES

No representation is made by the USDA Natural Resources Conservation Service or the [illegible] County Land Conservation Department as to the existence or nonexistence of underground hazards. Prior to the start of construction the owners of utilities must be notified of the pending construction. You will be liable for damages resulting from construction activities. (Call Diggers Hotline)

CONSTRUCTION DRAWINGS AND SPECIFICATIONS ACCEPTANCE

I/we have reviewed and do accept the attached plans. I/we agree to have this project constructed in accordance with these plans and specifications and to notify all affected utility companies.

Signed: _____ Date: _____

Designed by: [illegible] Date: [illegible]

Checked by: _____ Date: _____

Approved by: [illegible] Date: [illegible]

Approved by: _____ Date: _____

Job Approval Class [illegible]

Sheet ____ of ____

Construction Notes

1. The Grassed waterway will begin at the Hwy 120 road culvert and end at the edge of the creek.

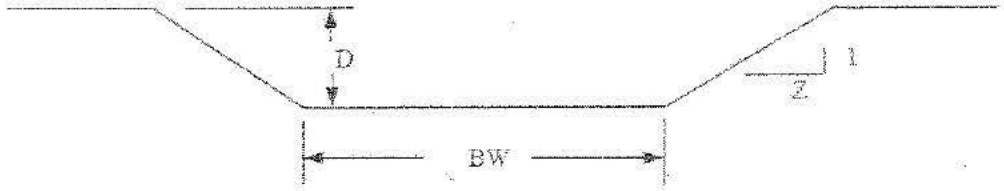
2. Two 5 inch clay tiles drain into existing gullies. The 2 tiles need to be connected to an 8-inch tile or continued to two 6-inch tiles.

3. From the tile connection, (Station 1+75) to about station 5+00, the gully must be buried with earth fill and will be properly compacted, prior to installation of the tile. Avoid installing tile in this area. Where needed the waterway will be top-dressed with at least 6 inches of topsoil.

4. At Station 1+50 an existing temporary diversion will be maintained to divert the runoff away from the waterway and into the field. This will be left in place until the waterway has been firmly established.

5. The tile will empty directly into the creek. The outlet will be protected with a 16 foot cmp or PVC pipe outlet and rodent guard.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE DRAWING NO. WI-402 REV. 2/94



TRAPEZOIDAL CROSS SECTION

CONSTRUCTION DETAILS

WATERWAY NUMBER	REACH FROM	REACH TO	CHANNEL SLOPE(%)	BOTTOM WIDTH (BW) FEET	DEPTH (D) FEET	SIDE SLOPE (Z)	LENGTH FEET
1	0+00	13+00	1.5	12	1.6	10	1300

NOTES AND SPECIFICATIONS

1. TOPSOIL SHALL BE STOCKPILED AND RESPREAD ON THE WATERWAY WHEN NEEDED TO FACILITATE REVEGETATION.
2. PLACE SPOIL WHERE IT WILL NOT INTERFERE WITH SURFACE WATER FLOW INTO THE WATERWAY.
3. SEED ALL DISTURBED AREAS ACCORDING TO THE ATTACHED SEEDING SPECIFICATIONS.
4. MAINTENANCE ITEMS - REPAIR AREAS OF DAMAGED VEGETATION. DO NOT USE THE WATERWAY FOR A TRAVEL LANE. DO NOT PLOW INTO THE WATERWAY SIDES

TRAPEZOIDAL GRASSED WATERWAY

Ex. 6 (Personal Privacy) STATE

OWNER

Walworth LCC, WI

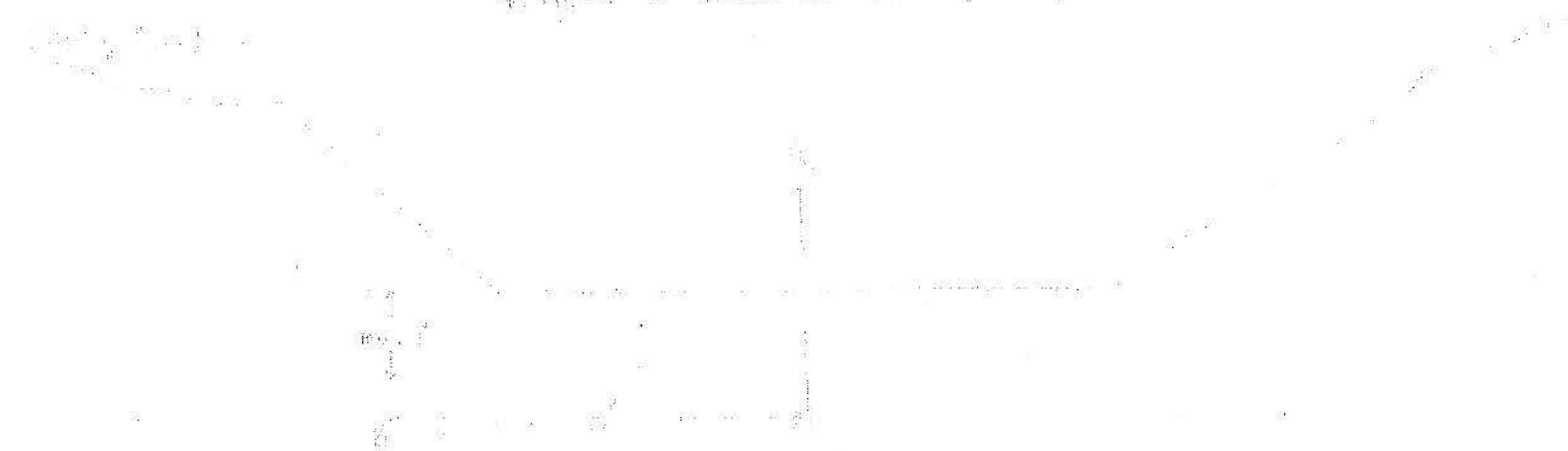
Designed: Checked:

SHEET 5 OF 6

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DRAWING NO. WI-601 REV. 9/86

NOTE: STANDARDIZED DESIGN: MUST BE ADAPTED TO THE SPECIFIC SITE.



LOCATION PLAN

LINE	STATIONS		TILE SIZE INCHES	TILE GRADE %
	FROM	TO		
1	[illegible]	[illegible]	[illegible]	[illegible]

SUBSURFACE DRAINAGE

[redacted] OWNER

Walworth LCC, WI
COUNTY

Designed: [illegible] Checked: [illegible]

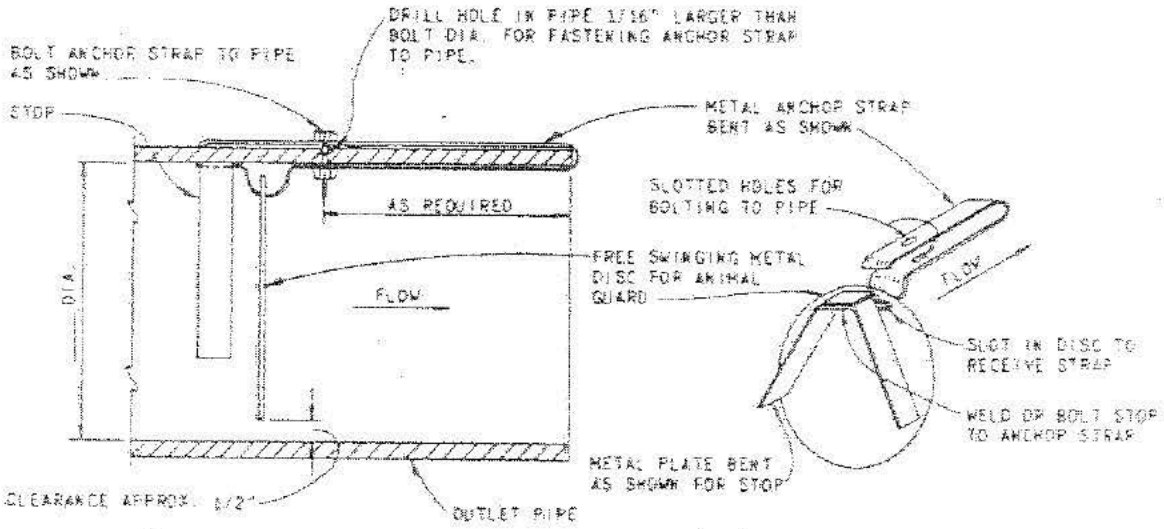
SHEET [illegible] OF 6

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DRAWING NO. WI-602 REV. 9/86

NOTES:
1. STANDARDIZED DESIGN: MUST BE ADAPTED TO THE SPECIFIC SITE.
2. THE DESIGN FOLDER IS FILED IN THE SCS STATE OFFICE, 4601 HAMMERSLEY ROAD, MADISON, WISCONSIN 53711.

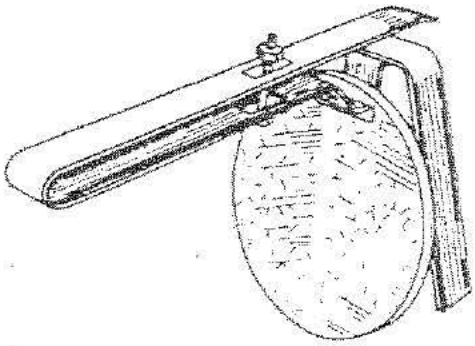
NOTE: ANIMAL GUARD SHALL BE FABRICATED OF EITHER ALUMINUM OR GALVANIZED STEEL.



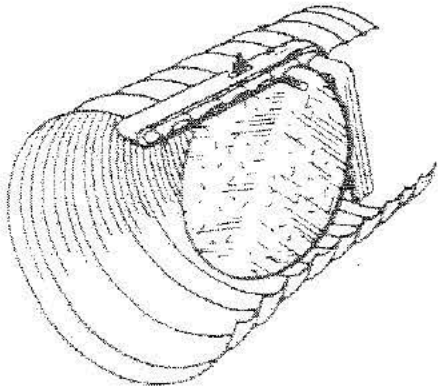
SECTION

PERSPECTIVE VIEW FROM BACK

EQUIVALENT TO ANIMAL GUARD PRODUCTS
P. O. BOX 103, 107 W. BRYAN ST.
HICKSVILLE, OHIO 43526



SEE REVERSE SIDE FOR ADDITIONAL INFORMATION



PERSPECTIVE VIEWS FROM OUTLET END OF PIPE

ANIMAL GUARDS FOR TILE OUTLETS

Ex. 6 (Personal Privacy) [redacted]
OWNER

Waukesha LCC, WI
COUNTY

Designed: [illegible] Checked: [illegible]

SHEET 5 OF 5

UNITED STATES DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

WI-CPA-123
10/83

ESTABLISHING AND MAINTAINING VEGETATION

1. Make Plans for Seeding after Construction! Seed within 24 hours after construction. If construction finishes after September 15 make a temporary seeding of winter wheat or a dormant seeding. If a temporary seeding is done, plan to reseed in early spring. Where possible and practical, divert runoff until vegetation is established. Use soil retention blankets, jute matting, or sod in critical areas where water concentrates.

2. Obtain Needed Materials! Test soil. Secure lime, fertilizer, seed, seed inoculation and mulching materials before construction starts.

   a. Lime. If needed, apply lime at a rate as determined by soil test.
   b. Fertilizer. In lieu of a soil test, apply 400-600 pounds per acre of 20-10-10.
   c. Seed. Always check the label and seed in pure live seed rates.
   d. Mulch Materials. Mulch with 1 1/2 tons/acre of straw or hay reasonably free from grain and weed seed, or strawy manure at a rate of 6-8 T/A may be used.

(From Critical Area Planting Mixtures -342) Species	SEED RATES PER ACRE AND SEED NEEDED IN POUNDS					
	LOCATION: Waterway 1.5 Acres		LOCATION: Acres		LOCATION: Acres	
	Rate Per Acre	Lbs. of Seed Needed	Rate Per Acre	Lbs. of Seed Needed	Rate Per Acre	Lbs. of Seed Needed
Smooth Bromegrass	20	30				
Tall Fescue	10	15				
Perrenial Ryegrass	5	7.5				
Oats	1.5 bushels	2.25bu				

3. Prepare the Seedbed! THE SUCCESS OF THIS SEEDING DEPENDS ON THE PROPER SEEDBED. With a disk or harrow, work the soil to a 3 inch depth. On small areas, handwork may be necessary.

4. Mulch Properly! Spread mulch uniformly. 1 1/2 T/A is 60 bales per acre or 6-7 stems thick. Anchor mulch by pressing into soil with a dull, weighted disc set straight or other approved methods. Work waterways crosswise when possible.

5. Seed! Inoculate birdsfoot trefoil and crownvetch properly. Seed shallow at 1/4 to 1/2 inch deep immediately after seedbed preparation. A cultipacker seeder works well. A hydro-seeder or hand seeder can be used.

6. Maintain Properly! Control weeds and undesirable woody vegetation. Delay mowing until after July 15 to accomodate ground-nesting wildlife. If pastured, always regulate grazing. Where grasses alone are used, an occasional application of fertilizer, high in nitrogen helps maintain the stand.

ADDITIONAL COMMENTS:
If seeding by hand, increase rates by 50%.

[redacted] Farms
OWNER
Walworth Co.
Designed: [redacted] Checked:
SHEET 1 OF 1

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DRAWING NO. WI-802 (11/84)

OPERATIONS AND MAINTENANCE PLAN

WATERWAYS AND DIVERSIONS

I agree to the following for the next 10 years.

1. Channel bottom will not be used as a field access road.

2. Periodically cut waterway to control weeds and invading brush.

3. Graze only when the ground is firm. Waterway will be fenced if necessary to avoid excessive grazing.

4. Inspect frequently, especially after heavy rains. Small rills or gullies will be immediately filled and seeded, or have sod placed into them. (Sod strips can be plowed from nearby pasture or hay areas).

5. Chemicals which kill grass will not be sprayed onto or allowed to drain into the waterway.

6. Waterway side slopes are not to be plowed.

Maintenance Plan

Waterways and Diversions

[redacted]
OWNER

[illegible] LCC, WI
COUNTY

Designed: [illegible] Checked:

SHEET ____ OF ____

SIGNATURE ____________________ DATE __________

GRASSED WATERWAY OR OUTLET

SPECIFICATION #412

All trees, stumps, brush, and similar material are to be removed from the site and disposed of in a manner consistent with environmental concerns and proper functioning of the waterway or outlet. All steep gully banks shall be sloped before filling.

The waterway or outlet shall be shaped or constructed to the specified dimensions and free of bank projections or other irregularities. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed waterway. The channel shall be free draining with no reverse grades.

All earth removed and not needed in construction of the waterway or outlet shall be spread or disposed of so it will not interfere with the functioning of the waterway.

As a temporary measure, water may be diverted out of the channel by a temporary diversion above the waterway and by spoil ridges along the sides of the waterway. These are removed after the seeding is established.

Critical areas, such as breaks in channel grade, outlets or constrictions, changes in soil types, or excessive velocities that would cause channel scour, require special attention. The use of excelsior retention blankets, jute matting, or sod should be considered.

Concentrated Flow Soil Loss Worksheet

Name: Ex. 6 (Personal Privacy) Farms inc
Date: 3/25/04
Tract:

Field Number or Waterway reach	Channel Depth	Bottom Width	Top Width	Length	Soil Weight (Based on Texture)	years to form	Tons/year	Acres Affected	Remarks
1	2.4	2	10	800	90	5	104		
2	0.25	1	2	600	90	1	10		
	0.8	0.5	2	200	90	1	9		
3	0.5	1	3	300	90	1	14		

Approximate Unit Weight for Concentrated Flow Calculations

General Texture	Relative Organic Matter Content	Estimated Weight #/Cubic ft
Organic		15
Silty	Dark Colored	85
	Light Colored	90
Loamy	Dark Colored	90
	Light Colored	95
Sandy	Dark Colored	95
	Light Colored	100
Clayey	Dark Colored	100
	Light Colored	100
Coarse Materials		115

Ex. 6 (Personal Privacy)

ATTACHMENT D

SAMPLE ANALYSIS FROM NOVEMBER 17, 2015 SAMPLING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: 12/15/2015

Subject: Review of Region 5 Data for [redacted] Farm

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Colin Breslin, Chemist
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Colin Breslin 12/15/2015

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for [redacted] Farm

/ /

Data Management Coordinator and Date Transmitted

Analyses included in this report:

BOD

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-15-15 14:43

Analysis Case Narrative

General Information

Three water samples for the analysis of 5-day biochemical oxygen demand (BOD5) were received at the Chicago Regional Laboratory (CRL) on November 18, 2015. The samples met the temperature preservation requirement of less than or equal 6 °C. The samples were analyzed within the 48 hour hold time. The designated analyst, Colin Breslin, can be reached at 312-886-2912.

The samples were prepared and analyzed according to CRL SOP AIG006A, Version #1 (SM 5210B).

Sample Analysis and Results

The results in this report were reviewed against the Quality Assurance Project Plan (QAPP) titled "2015 General Field Sampling Plan 040715". In the absence of customer-specified Data Quality Objectives, the Chicago Regional Laboratory defaults to the analytical Standard Operating Procedure (SOP) method detection or reporting limits. The data reported here meet the reporting limits referenced in CRL SOP AIG006A Version #1 (SM 5210B).

All sample results were flagged as "K - The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value". The potential high bias in the results was because the samples were incubated for 6 days instead of the required 5 days, which was due to Analyst error. To avoid this oversight in the future the incubation schedule will be posted in the laboratory and at the Analyst's desk, the Analyst will set calendar reminders for himself/herself and a designated back-up, and the Analyst will utilize the incubation schedule in the instrument software by checking it when samples are being incubated.

In addition to the potential high bias all sample results were also flagged as "J - The identification of the analyte is acceptable; the reported value is an estimate" because of two quality control exceedances. First, the glucose/glutamic acid (GGA) check solution was not recovered within the prescribed control limits. Second, the duplicate sample analysis exceeded the quality control limit. See below under Quality Control for a further explanation.

Sample with CRL identification number 1511008-01 (field name: S01) did not have valid dissolved oxygen (DO) depletions. The first dilution in the series did not have a valid depletion of at least 2 mg/L from the initial DO to the final DO reading. The remainder of the dilutions in the series did not have a final DO reading greater than 1 mg/L. The final result was reported from the first dilution. No additional data flags were added to this sample since it was already flagged as estimated.

Water Division, US EPA Region 5	Project: [redacted] Ex. 6 (Personal Privac) arm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-15-15 14:43

Sample with CRL identification number 1511008-03 (field name: B01) did not have valid dissolved oxygen (DO) depletions of at least 2 mg/L from the initial DO to the final DO readings for any of the sample dilutions that were analyzed. The likely cause was little to no oxygen demand in this sample. The final result was reported as "U – not detected at or above the reported limit". No additional data flags were added to this sample since it was already flagged as estimated.

Quality Control

All Quality Control (QC) audits were within CRL limits for the requested analytes or did not result in qualification of the data, except:

Incubation Period Exceeded:
The prescribed incubation period for BOD is 5 days ± 6 hours. These samples were incubated for 6 days. This mistake was due to the Analyst miscalculating the incubation period, and was a complete oversight on his part. An increased incubation time would likely cause extra oxygen consumption in the samples, which would cause the final BOD results to be higher than what would be expected from a 5 day incubation period. Therefore, the final results were reported with a potential high bias.

Glucose/Glutamic Acid (GGA) Check Solution:
The GGA check solution was recovered at 141.6 mg/L (71.5%), which fell outside the prescribed recovery limits of 167.5 – 228.5 mg/L (84.6 – 115.4%). The low recovery was likely due the use of a synthetic seed source. A wastewater treatment plant (WWTP) seed source could not be obtained within the sample holding time limit and the synthetic seed had to be used. Low recoveries of GGA solution, apparently even with an extra incubation day, have been typical for the synthetic seed. Even though the synthetic seed was used the field samples themselves likely had sufficient microorganisms to induce oxygen demand from carbonaceous materials, and the results remain flagged with a potential high bias for the incubation period.

Sample Batch Duplicate QC Audit:
Sample with CRL identification number 1511008-01 (field name: S01) had a final BOD result of 870 mg/L and its batch QC duplicate was 1600 mg/L. This was a relative percent difference (RPD) of 56.7%, which exceeded the RPD control limit of 20%. The final result for sample 1511008-01 (field name: S01) was calculated from an invalid depletion, but the duplicate result was calculated from a valid depletion. Comparing valid and invalid depletions increases the amount of uncertainty in the final results. This was likely caused by a difficult sample matrix that remained non-homogenous even after vigorous preparation. Therefore, the results were flagged as estimated.

Final Evaluation of QC Exceedances:
Unfortunately, multiple QC exceedances impacted the final reliability in these results. The overarching factor

Water Division, US EPA Region 5	Project [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-15-15 14:43

was the 6 day incubation period, which would likely indicate high bias in the results. The additional factors (invalid depletions, GGA low recovery, and RPD exceedance) further confounded the final results and added additional uncertainty causing the results to be flagged as estimated. Therefore, the final results were reported as estimates with a potential high bias.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-15-15 14:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1511008-01	Water	Nov-17-15 13:40	Nov-18-15 08:21
S02	1511008-02	Water	Nov-17-15 13:54	Nov-18-15 08:21
B01	1511008-03	Water	Nov-17-15 14:22	Nov-18-15 08:21

BOD, 5 day, SM 5210 B (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1511008-01) Water Sampled: Nov-17-15 13:40 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	870	J, K		2	mg/L	1	B15K039	Nov-18-15	Nov-18-15

S02 (1511008-02) Water Sampled: Nov-17-15 13:54 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	690	J, K		2	mg/L	1	B15K039	Nov-18-15	Nov-18-15

B01 (1511008-03) Water Sampled: Nov-17-15 14:22 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Biochemical Oxygen Demand	U	J, K		2	mg/L	1	B15K039	Nov-18-15	Nov-18-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-15-15 14:43

Notes and Definitions

K	The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU ACCREDITED

Date: 12/30/2015

Subject: Review of Region 5 Data for [redacted] Farm

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Laurence Wong, SEEP Analyst
US EPA Region 5 Chicago Regional Laboratory

Analyst is a (check one): ✓ SEE Enrollee __ORISE Participant __Contractor
Grantee Organization or Contract Company: NAPCA
Assigned to the Chicago Regional Laboratory at U.S. EPA, Region 5
Reviewed by (initials, date): FDB 1/4/2016, chemist at Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X ______________________________

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for [redacted] Farm

______________________________ / /
Data Management Coordinator and DateTransmitted

Analyses included in this report:

Solids, TSS

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 14:43

ANALYSIS CASE NARRATIVE

General Information

Three (3) water samples under Work Order #1511008 received on November 18, 2015 were for Total Dissolved Solids (TSS) analysis. The designated analyst was Laurence Wong; and the contact person, Francis Awanya (phone number: 312-886-3682).

The sample preparation and analysis began on November 23, 2015, and were completed on November 24, 2015. The samples were kept in refrigerator at $\leq 6°C$ at all-time except when in use. The sample holding time limit was met. Other pertinent information is provided in the final analysis report.

The sample preparation and analysis followed procedure CRL SOP AIG018 Version #1 (Standard Method 2540 D).

Sample Analysis and Results

The data reported herein met the DQO for "2015 General Field Sampling Plan 103113-CAFOs" and the "2014 reporting request for CAFO samples 062014".

Quality Control

All quality control (QC) audits followed CRL guidelines. The required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 14:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1511008-01	Water	Nov-17-15 13:40	Nov-18-15 08:21
S02	1511008-02	Water	Nov-17-15 13:54	Nov-18-15 08:21
B01	1511008-03	Water	Nov-17-15 14:22	Nov-18-15 08:21

Total Suspended Solids, SM 2540 D (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1511008-01) Water Sampled: Nov-17-15 13:40 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**2730**			5.0	mg/L	1	B15K041	Nov-23-15	Nov-23-15

S02 (1511008-02) Water Sampled: Nov-17-15 13:54 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	**780**			5.0	mg/L	1	B15K041	Nov-23-15	Nov-23-15

B01 (1511008-03) Water Sampled: Nov-17-15 14:22 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	U			5.0	mg/L	1	B15K041	Nov-23-15	Nov-23-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	**Reported:**
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 14:43

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

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Water Division, US EPA Region 5	Project: Ex. 6 (Personal Priva Farm	
77 West Jackson Boulevard	Project Number: 2015-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 14:43

Notes and Definitions

U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATIC BUREAU ACCREDITED ISO/IE

Date: 12/30/2015

Subject: Review of Region 5 Data for [redacted] Farm

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Laurence Wong, SEEP Analyst
US EPA Region 5 Chicago Regional Laboratory

Analyst is a (check one): ✓ SEE Enrollee __ ORISE Participant __ Contractor
Grantee Organization or Contract Company: NAPCA
Assigned to the Chicago Regional Laboratory at U.S. EPA, Region 5
Reviewed by (initials, date): FAG 1/4/2016, chemist at Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Laurence Wong

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: [redacted] Farm

1/1

Data Management Coordinator and Date Transmitted

Analyses included in this report:

Solids, TDS

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	**Reported:**
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 13:46

ANALYSIS CASE NARRATIVE

General Information

Three (3) water samples under Work Order #1511008 received on November 18, 2015 were for Total Dissolved Solids (TDS) analysis. The designated analyst was Laurence Wong; and the contact person, Francis Awanya (phone number: 312-886-3682).

The sample preparation and analysis began on November 23, 2015, and were completed on November 24, 2015. The samples were kept in refrigerator at ≤ 6°C at all-time except when in use. The sample holding time limit was met. Other pertinent information is provided in the final analysis report.

The sample preparation and analysis followed procedure CRL SOP AIG017 Version #2 (Standard Method 2540 C).

Sample Analysis and Results

The data reported herein met the DQO for "2015 General Field Sampling Plan 103113-CAFOs" and the "2014 reporting request for CAFO samples 062014".

Quality Control

All quality control (QC) audits followed CRL guidelines. The required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] arm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 13:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1511008-01	Water	Nov-17-15 13:40	Nov-18-15 08:21
S02	1511008-02	Water	Nov-17-15 13:54	Nov-18-15 08:21
B01	1511008-03	Water	Nov-17-15 14:22	Nov-18-15 08:21

Dissolved Solids, SM 2540C (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1511008-01) Water Sampled: Nov-17-15 13:40 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	1740			20.0	mg/L	1	B15K040	Nov-23-15	Nov-23-15

S02 (1511008-02) Water Sampled: Nov-17-15 13:54 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	1460			20.0	mg/L	1	B15K040	Nov-23-15	Nov-23-15

B01 (1511008-03) Water Sampled: Nov-17-15 14:22 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	U			20.0	mg/L	1	B15K040	Nov-23-15	Nov-23-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
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Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	**Reported:**
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 13:46

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Environmental Protection Agency Region 5
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Water Division, US EPA Region 5	Project [Ex. 6 (Personal Privac redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-30-15 13:46

Notes and Definitions

U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: 12/1/2015

Subject: Review of Region 5 Data for [redacted] Farm

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Anna Knoebel, Chemist
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Anna Knoebel

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: [redacted]

/ /

Data Management Coordinator and DateTransmitted

Analyses included in this report:

Nitrate-Nitrite N DA, Enzymatic reduction

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-01-15 07:41

ANALYSIS CASE NARRATIVE – Nitrate-Nitrite Nitrogen in Water

Work Order: 1511008
Analyst: Anna Knoebel
Phone #: (312) 353-9467

General Information

Three water samples for Nitrate-Nitrite Nitrogen were received on November 18, 2015. All holding times were met.

Sample Analysis and Results

The samples were analyzed for Nitrate-Nitrite Nitrogen in water on November 24, 2015 using CRL SOP AIG031B, Version # 1 (ASTM D7781-14). The samples were stored in the refrigerator at all times except when in use.

A new SOP (AIG031B) which follows ASTM method D7781-14 (*Standard Test Method for Nitrate-Nitrite in Water by Nitrate Reductase*) was added in August of 2015. This method is different than the method referenced in the "*2015 General Field Sampling Plan 040715*". The data reported herein meets the Data Quality Objectives referenced in CRL SOPs AIG031B, Version # 1 and "*2014 reporting request for CAFO samples 062014*".

Quality Control

All quality control audits were within CRL limits or did not result in qualification of the data.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-01-15 07:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1511008-01	Water	Nov-17-15 13:40	Nov-18-15 08:21
S02	1511008-02	Water	Nov-17-15 13:54	Nov-18-15 08:21
B01	1511008-03	Water	Nov-17-15 14:22	Nov-18-15 08:21

Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1511008-01) Water Sampled: Nov-17-15 13:40 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	1.29		0.04	0.10	mg/L	1	B15K058	Nov-24-15	Nov-24-15

S02 (1511008-02) Water Sampled: Nov-17-15 13:54 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	2.77		0.04	0.10	mg/L	1	B15K058	Nov-24-15	Nov-24-15

B01 (1511008-03) Water Sampled: Nov-17-15 14:22 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	U	U	0.04	0.10	mg/L	1	B15K058	Nov-24-15	Nov-24-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-01-15 07:41

Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2280 Testing

Date: 12/16/2015

Subject: Review of Region 5 Data for [Ex. 6 (Personal Privacy)] Farm

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Anna Knoebel, Chemist
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Anna Knoebel

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: [Ex. 6 (Personal Privacy)] Farm

/ /

Data Management Coordinator and DateTransmitted

Analyses included in this report:

Ammonia N DA, Distilled

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted]arm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-16-15 08:35

ANALYSIS CASE NARRATIVE – Distilled Ammonia Nitrogen in Water

Work Order: 1511008
Analyst: Anna Knoebel
Phone #: (312) 353-9467

General Information

Three water samples for Ammonia Nitrogen were received on November 18, 2015. All holding times were met.

Sample Analysis and Results

The samples were distilled and analyzed on December 9, 2015 for Ammonia Nitrogen in water using CRL SOP AIG029B, Version # 2 (Reference Method, Standard Method 4500 – NH3- B & H). The samples were stored in the refrigerator at all times, except when in use.

The data reported herein meets the Data Quality Objectives referenced in the "*2015 General Field Sampling Plan 040715*" and "*2014 reporting request for CAFO samples 062014*".

Quality Control

All quality control audits were within CRL limits or did not result in qualification of the data.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-16-15 08:35

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1511008-01	Water	Nov-17-15 13:40	Nov-18-15 08:21
S02	1511008-02	Water	Nov-17-15 13:54	Nov-18-15 08:21
B01	1511008-03	Water	Nov-17-15 14:22	Nov-18-15 08:21

Ammonia Nitrogen, SM4500B & H (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1511008-01) Water Sampled: Nov-17-15 13:40 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	26.5		0.60	2.00	mg/L	10	B15L011	Dec-09-15	Dec-09-15

S02 (1511008-02) Water Sampled: Nov-17-15 13:54 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	22.2		1.20	4.00	mg/L	20	B15L011	Dec-09-15	Dec-09-15

B01 (1511008-03) Water Sampled: Nov-17-15 14:22 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Ammonia as N	U		0.06	0.20	mg/L	1	B15L011	Dec-09-15	Dec-09-15

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	**Reported:**
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-16-15 08:35

Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Not Detected
NR	Not Reported

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025
Certificate # L2393 Testing

Date: 12/21/2015

Subject: Review of Region 5 Data for [redacted] Farm

To: Water Division, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

From: Nidia Fuentes, Analyst
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with EPA's *Guidance on Environmental Data Verification and Data Validation* (Document EPA QA/G-8), CRL verified and validated the data but does not perform data quality assessment based on project plans.

This report was reviewed and the information provided herein accurately represents the analysis performed.

x Nidia Fuentes 12/21/15

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: [redacted] Farm

/ /

Data Management Coordinator and Date Transmitted

Analyses included in this report:

TKN DA

Total Phosphorus DA

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-21-15 13:12

Analysis Case Narrative

General Information

A total of three water samples to be analyzed for Total Phosphorus (TP) were received at the Chicago Regional Laboratory on November 18, 2015. The water samples were digested and analyzed using CRL SOP AIG034B, Version #2 (EPA method 365.4). All holding times were met. The designated analyst for the sample is Nidia Fuentes. Nidia can be reached at 312-353-9079.

Sample Analysis and Results

The data reported herein meets the Data Quality Objectives referenced in the "*2015 General Field Sampling Plan 040715*" and "*2014 reporting request for CAFO samples 062014*", and the CRL SOP AIG034B Version #2 (EPA method 365.4)

Quality Control

All quality control audits were within the CRL's limits, with the exception of matrix spike.

Matrix spike recovery (163%) for sample 1511008-02 (S02), did not meet the QC limits of 80% to 120%. The sample was diluted 10X, therefore the spike amount was diluted out. The spike result is considered invalid and no qualifier was applied. Other QC such as blank spike (100%) meets the QC limits.

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Chicago Regional Laboratory

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Water Division, US EPA Region 5	Project: [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-21-15 13:12

AAnalysis Case Narrative

General Information

A total of three water samples to be analyzed for Total Kjeldahl Nitrogen (TKN) were received at the Chicago Regional Laboratory on November 18, 2015. The samples were digested and analyzed using CRL SOP AIG035B, Version #3 (EPA method 351.2).
All holding times were met. The designated analyst for these samples is Nidia Fuentes. Nidia can be reached at 312-353-9079.

Sample Analysis and Results

The data reported herein meets the Data Quality Objectives referenced in the "*2015 General Field Sampling Plan 040715*" and "*2014 reporting request for CAFO samples 062014*", and the CRL SOP AIG035B Version #3 (EPA method 351.2).

Quality Control

All quality control audits were within the CRL limits, with the exception of matrix spike.

Matrix spike recovery (118%) for sample 1511008-02 (S02), did not meet the QC limits of 90% to 110%. The sample was diluted 10X, therefore the spike amount was diluted out. The result is considered invalid and no qualifier was applied. Other QC such as blank spike (109%) meets the QC limits.

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Water Division, US EPA Region 5	Project [redacted] Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-21-15 13:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01	1511008-01	Water	Nov-17-15 13:40	Nov-18-15 08:21
S02	1511008-02	Water	Nov-17-15 13:54	Nov-18-15 08:21
B01	1511008-03	Water	Nov-17-15 14:22	Nov-18-15 08:21

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Water Division, US EPA Region 5	Project [redacted] arm	
77 West Jackson Boulevard	Project Number: 2016-01	**Reported:**
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-21-15 13:12

Phosphorus, Colorimetric, EPA 365.4 (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1511008-01) Water Sampled: Nov-17-15 13:40 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	39.6		0.96	2.40	mg/L	16	B15L007	Dec-07-15	Dec-08-15

S02 (1511008-02) Water Sampled: Nov-17-15 13:54 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	19.1		0.60	1.50	mg/L	10	B15L007	Dec-07-15	Dec-08-15

B01 (1511008-03) Water Sampled: Nov-17-15 14:22 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Phosphorus	U		0.06	0.15	mg/L	1	B15L007	Dec-07-15	Dec-08-15

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Water Division, US EPA Region 5	Project: EX. 6 (Personal Privacy) Farm	
77 West Jackson Boulevard	Project Number: 2016-01	Reported:
Chicago IL, 60604	Project Manager: Joan Rogers	Dec-21-15 13:12

Total Kjeldahl Nitrogen, EPA 351.2 (modified)
US EPA Region 5 Chicago Regional Laboratory

S01 (1511008-01) Water Sampled: Nov-17-15 13:40 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	174		4.20	10.5	mg/L	21	B15L008	Dec-07-15	Dec-08-15

S02 (1511008-02) Water Sampled: Nov-17-15 13:54 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	93.0		2.00	5.00	mg/L	10	B15L008	Dec-07-15	Dec-08-15

B01 (1511008-03) Water Sampled: Nov-17-15 14:22 Received: Nov-18-15 08:21

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Kjeldahl Nitrogen	0.20		0.20	0.50	mg/L	1	B15L008	Dec-07-15	Dec-08-15

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Notes and Definitions

U	Not Detected
NR	Not Reported